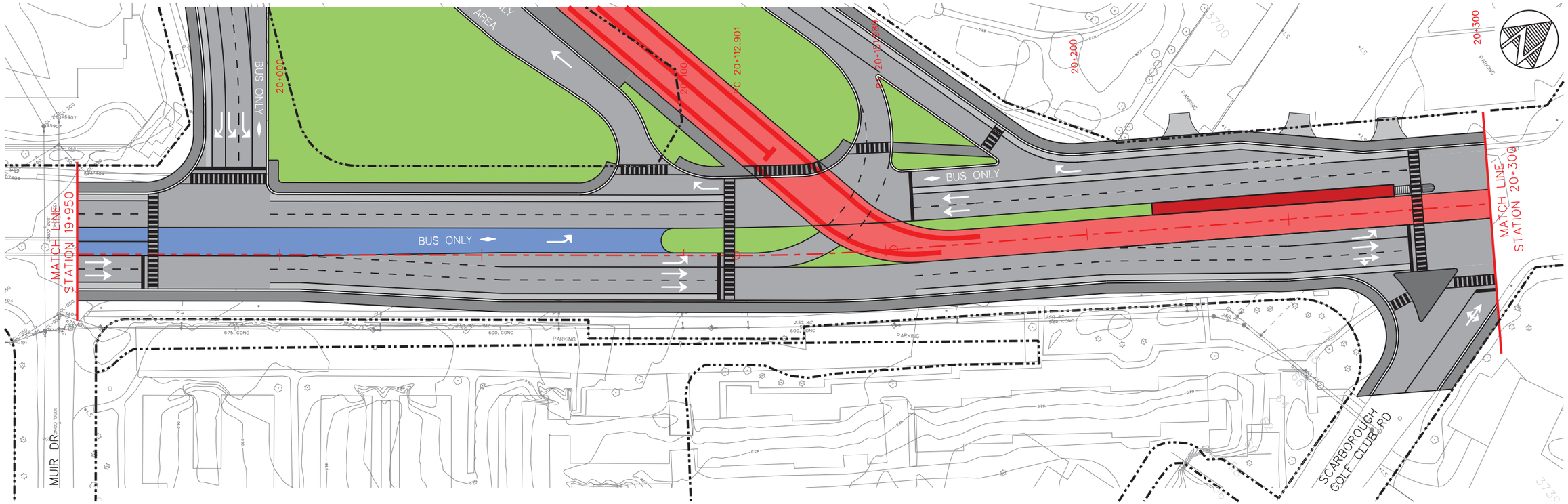

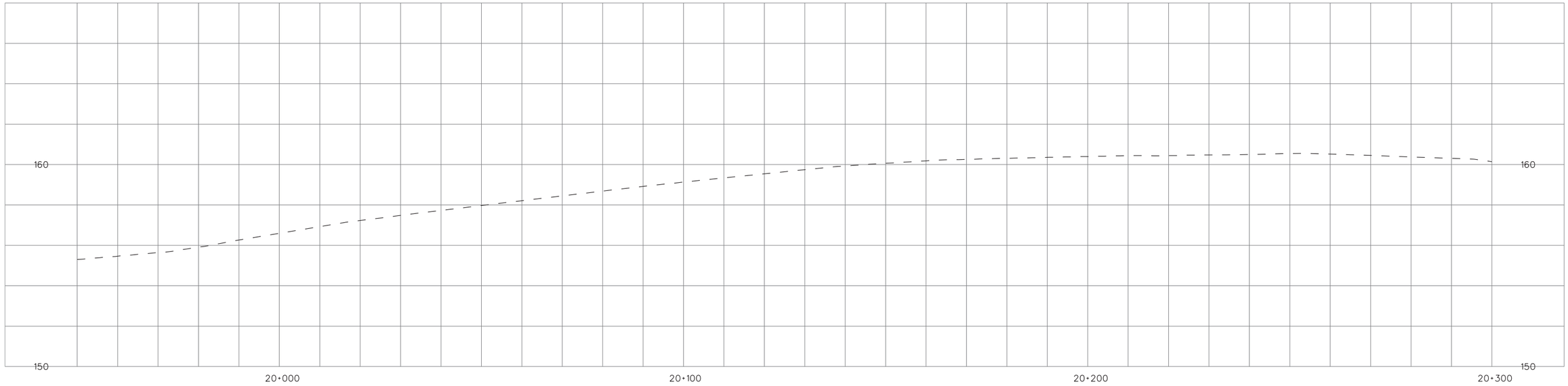

SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

KINGSTON ROAD – PLAN & PROFILE
STATION 19+950 TO STATION 20+300

IBI GROUP

TORONTO TRANSIT COMMISSION
ENGINEERING DEPARTMENT

Dwg. No.

Sheet No. 15

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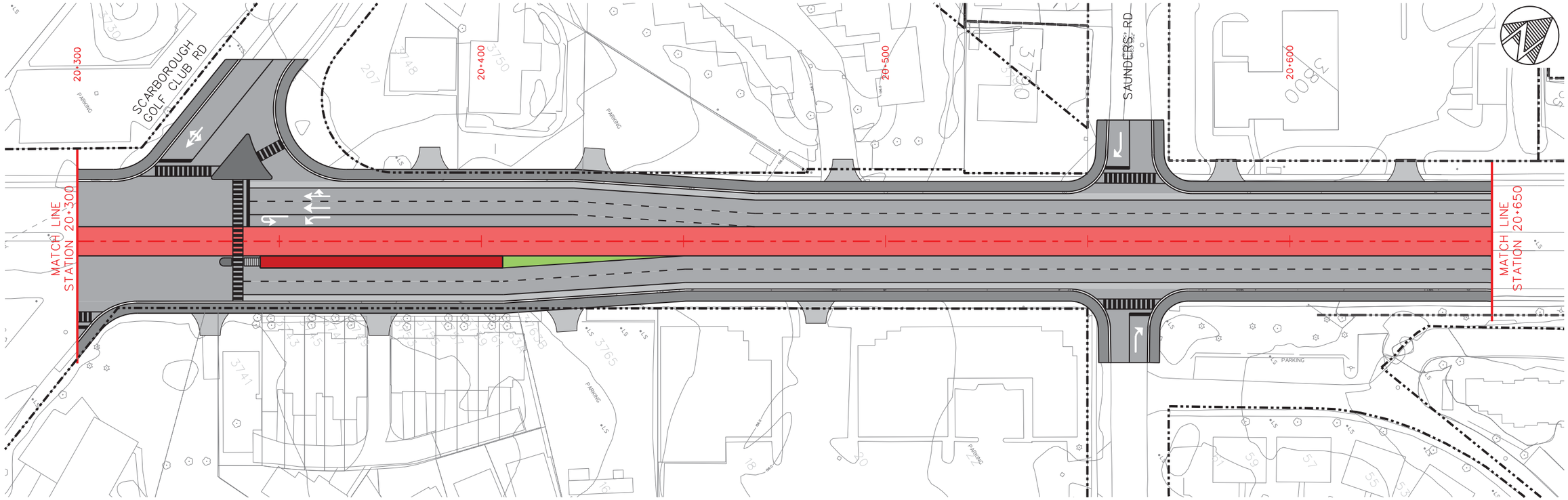

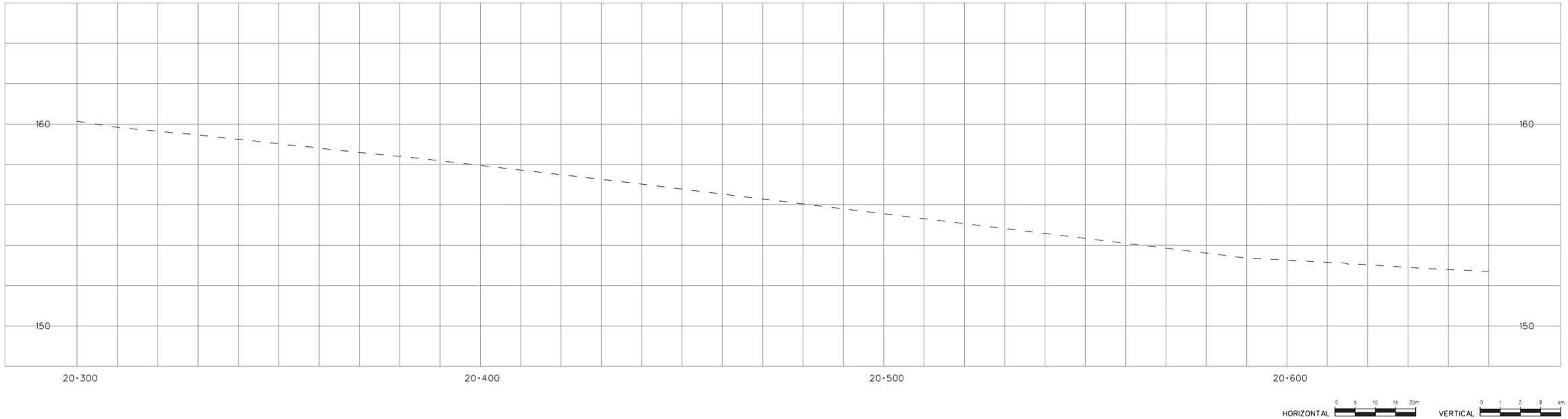

SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

KINGSTON ROAD – PLAN & PROFILE
STATION 20+300 TO STATION 20+650

IBI GROUP

TORONTO TRANSIT COMMISSION
ENGINEERING DEPARTMENT

Dwg. No.

Sheet No. 16

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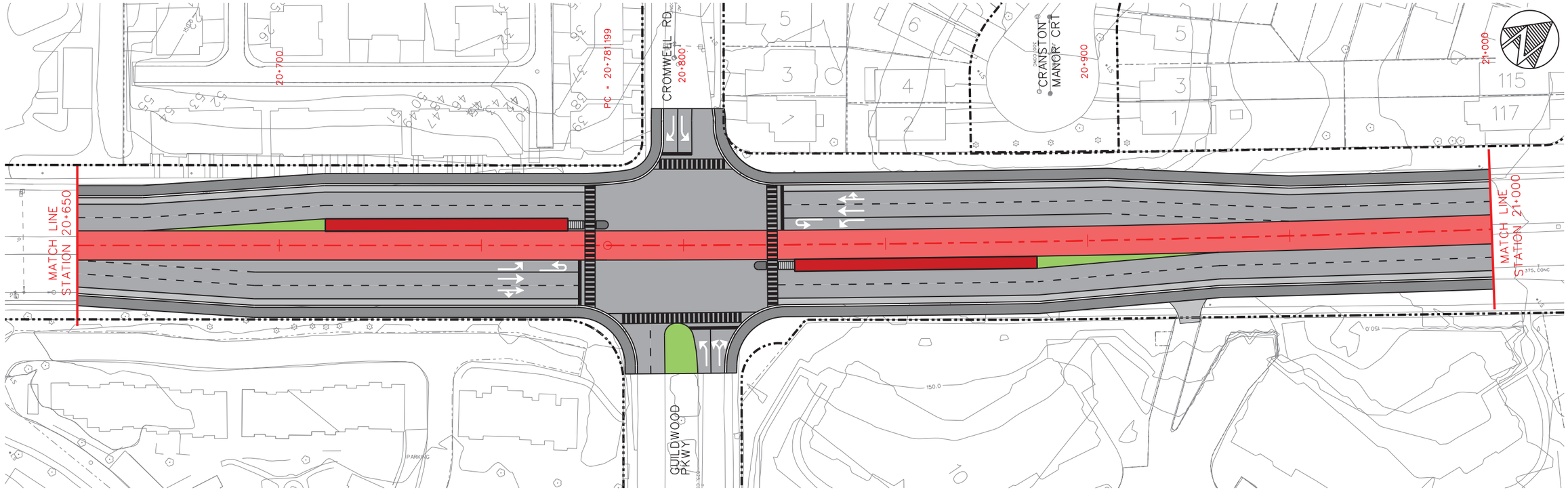

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SHEET No. FILE

DRAWING No.

SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

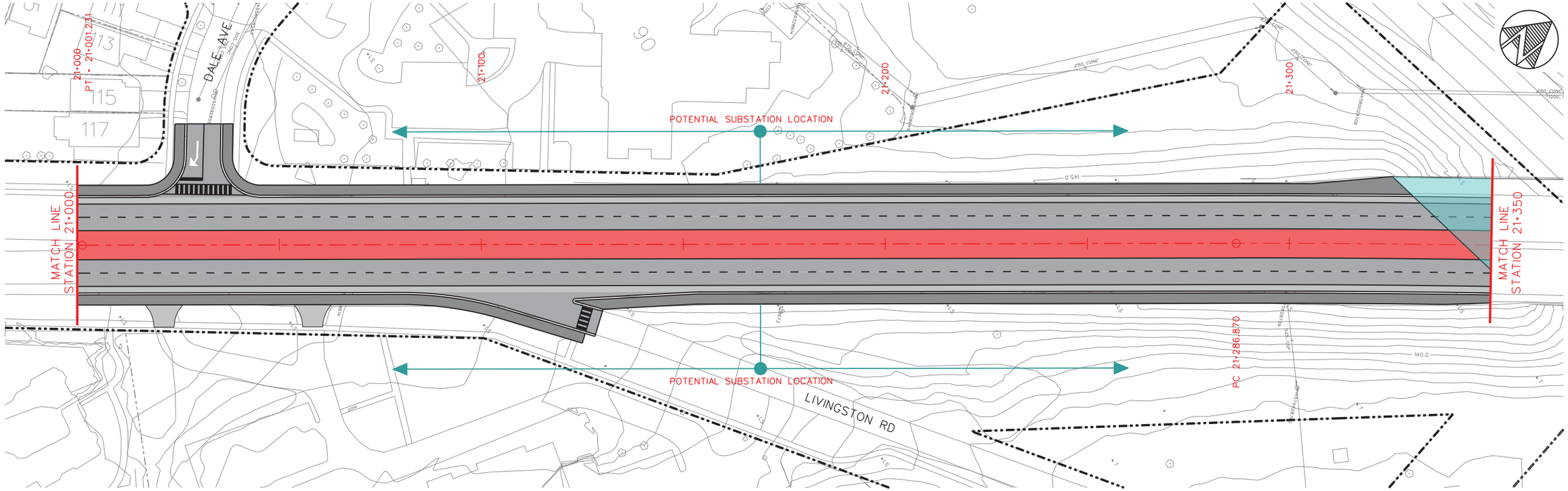
KINGSTON ROAD – PLAN & PROFILE
STATION 20+650 TO STATION 21+000

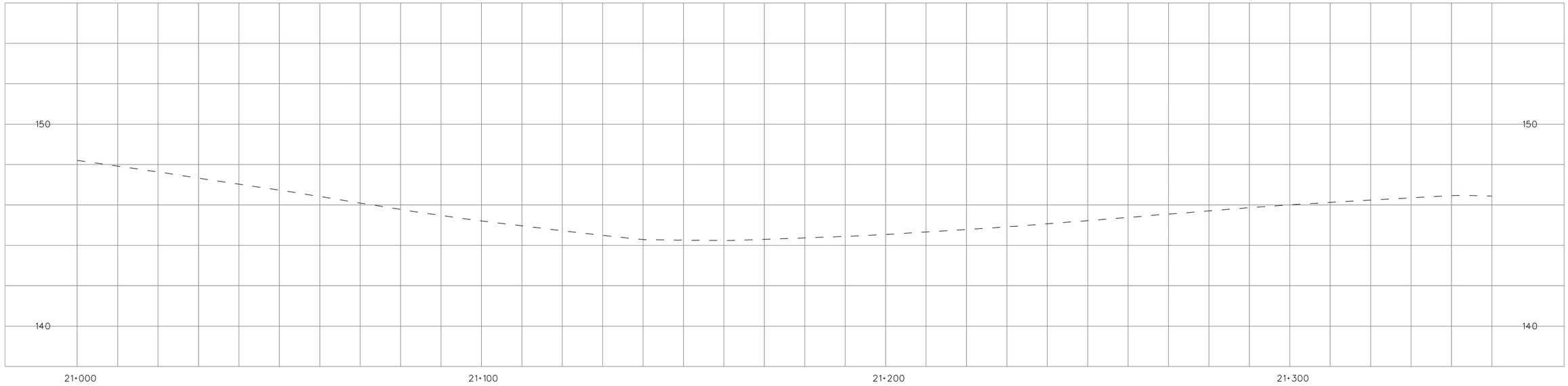
IBI GROUP

TORONTO TRANSIT COMMISSION
ENGINEERING DEPARTMENT

Dwg. No.

Sheet No.
17





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SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

KINGSTON ROAD – PLAN & PROFILE
STATION 21+000 TO STATION 21+350

IBI GROUP

TORONTO TRANSIT COMMISSION
ENGINEERING DEPARTMENT

Dwg. No.

Sheet No.
18

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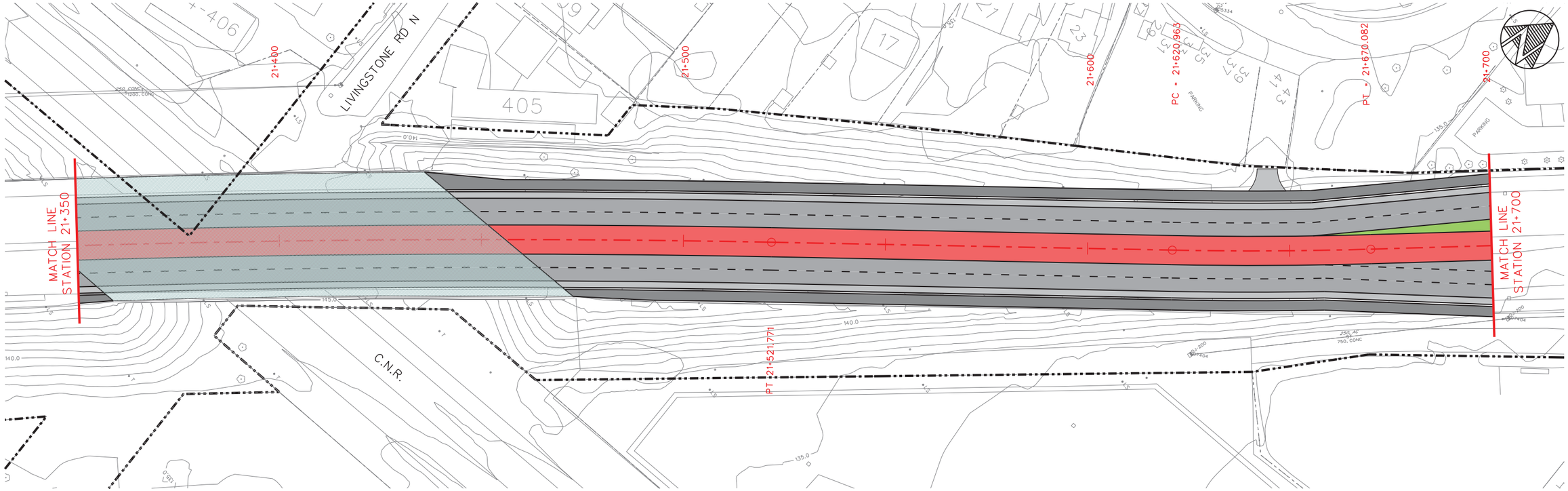

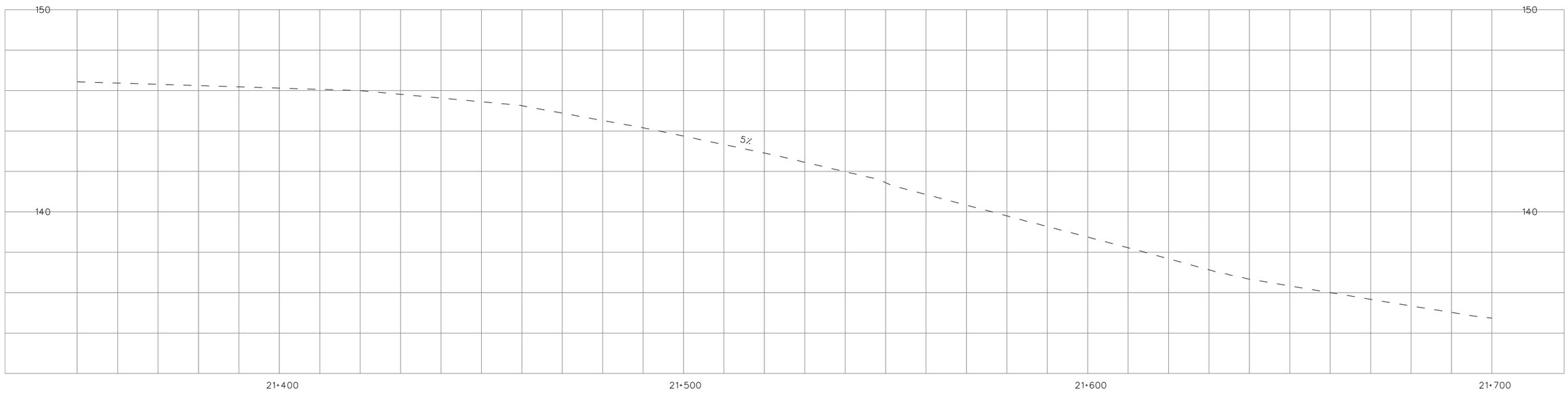

SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

KINGSTON ROAD – PLAN & PROFILE
STATION 21+350 TO STATION 21+700

IBI GROUP

TORONTO TRANSIT COMMISSION
ENGINEERING DEPARTMENT

Dwg. No.

Sheet No. 19

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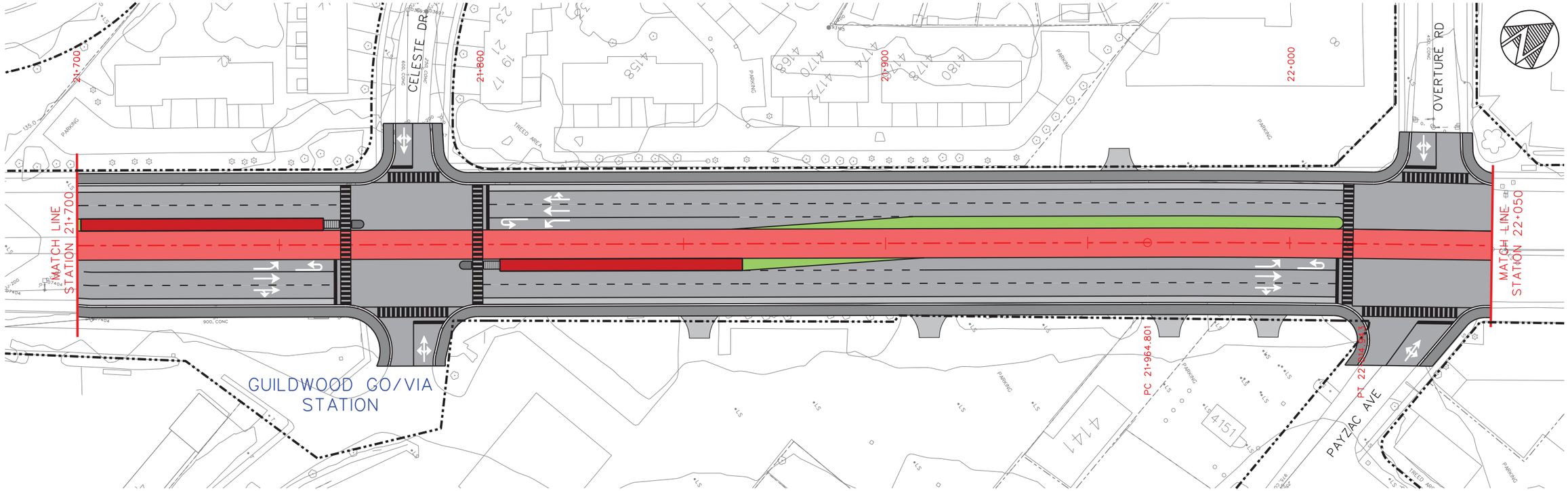

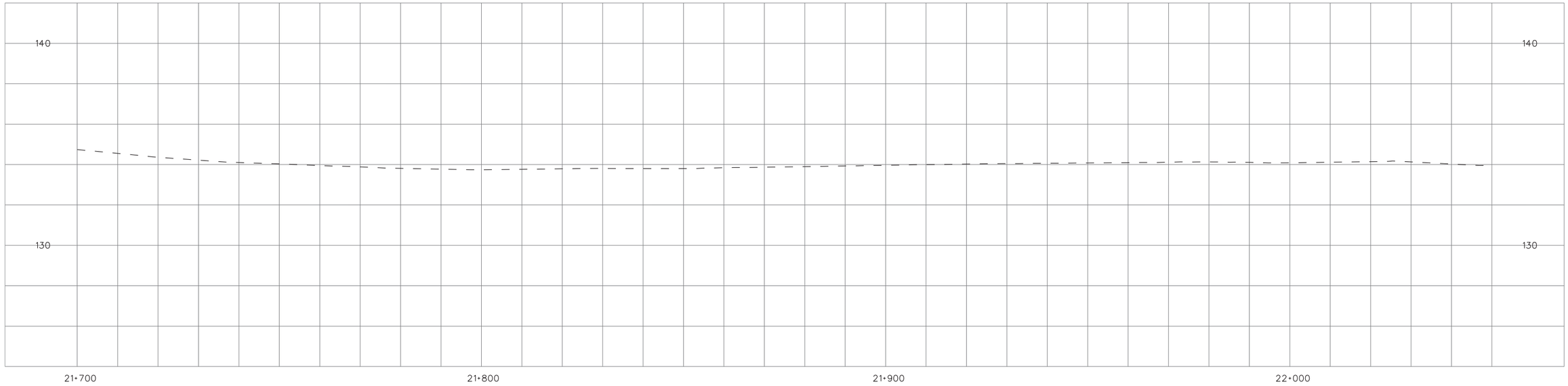

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DRAWING No. ____

SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

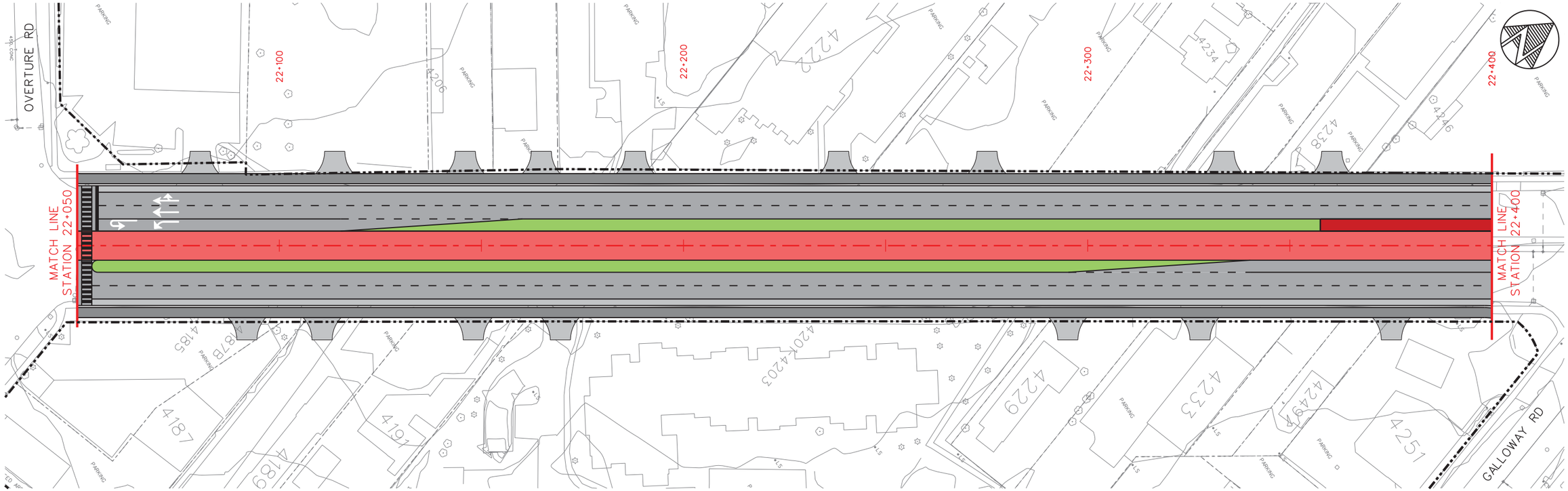
KINGSTON ROAD – PLAN & PROFILE
STATION 21+700 TO STATION 22+050

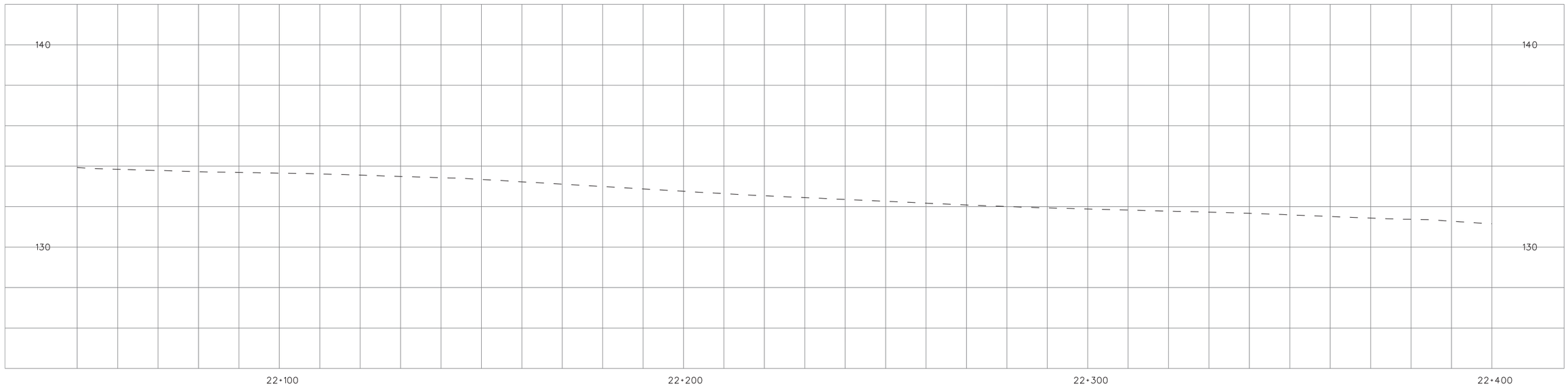
IBI GROUP

TORONTO TRANSIT COMMISSION
ENGINEERING DEPARTMENT

Dwg. No.

Sheet No.
20





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SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

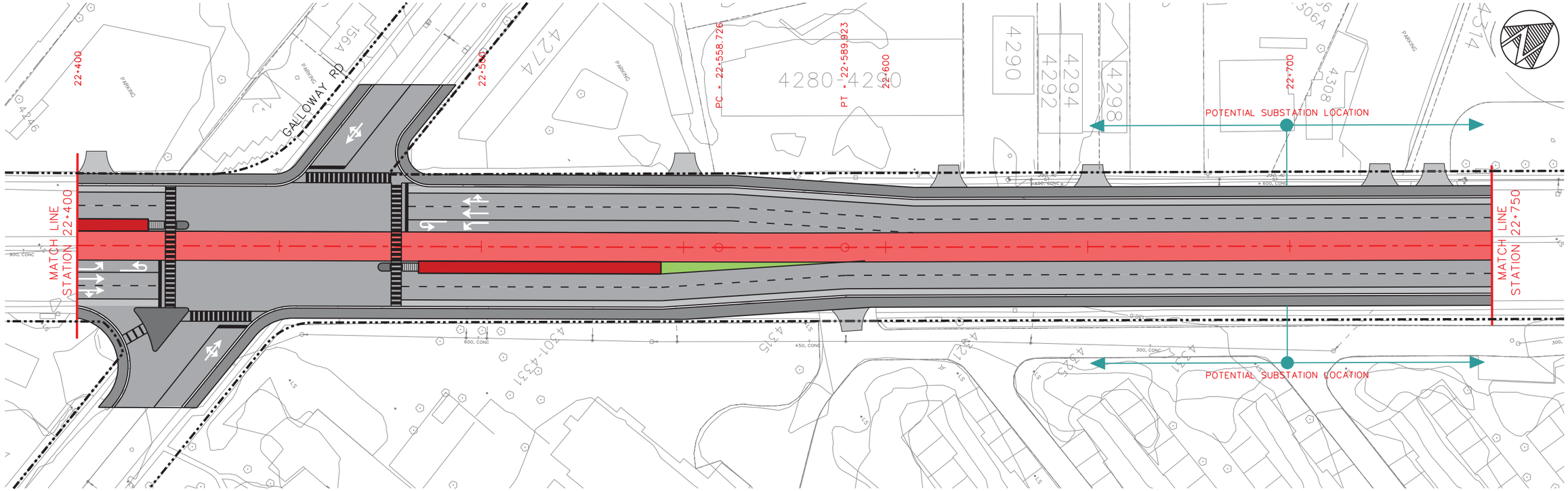
KINGSTON ROAD – PLAN & PROFILE
STATION 22+050 TO STATION 22+400

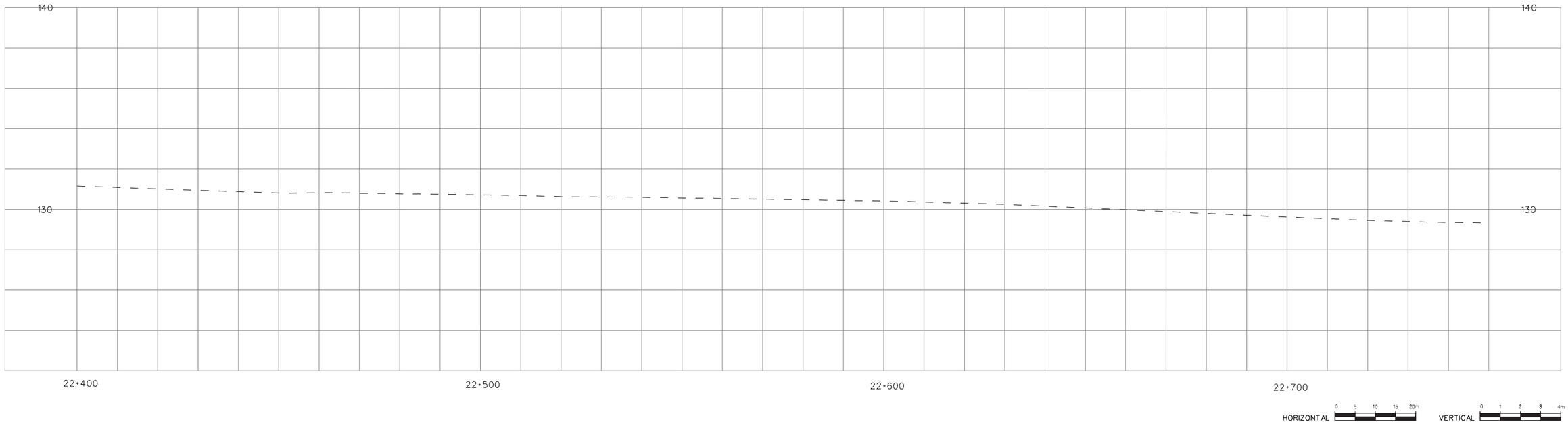
IBI GROUP

TORONTO TRANSIT COMMISSION
ENGINEERING DEPARTMENT

Dwg. No.

Sheet No.
21





SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

KINGSTON ROAD – PLAN & PROFILE
STATION 22+400 TO STATION 22+750

IBI GROUP

TORONTO TRANSIT COMMISSION
ENGINEERING DEPARTMENT

Dwg. No.

Sheet No. 22

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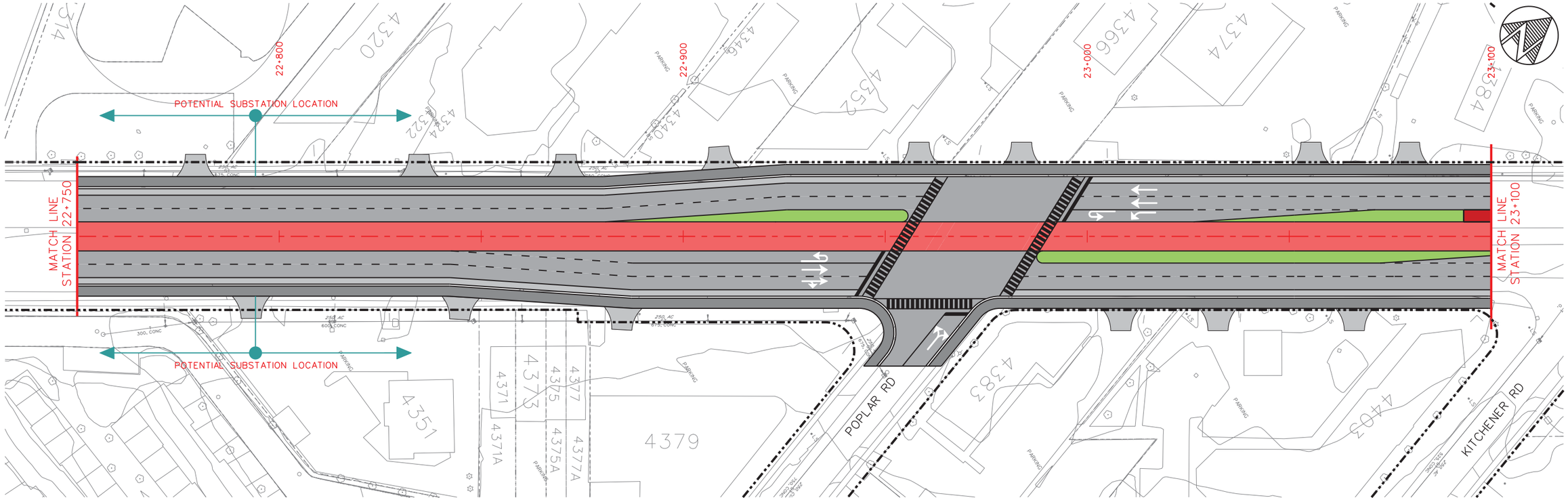

SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

KINGSTON ROAD – PLAN & PROFILE
STATION 22+750 TO STATION 23+100

IBI GROUP

TORONTO TRANSIT COMMISSION
ENGINEERING DEPARTMENT

Dwg. No.

Sheet No.
23

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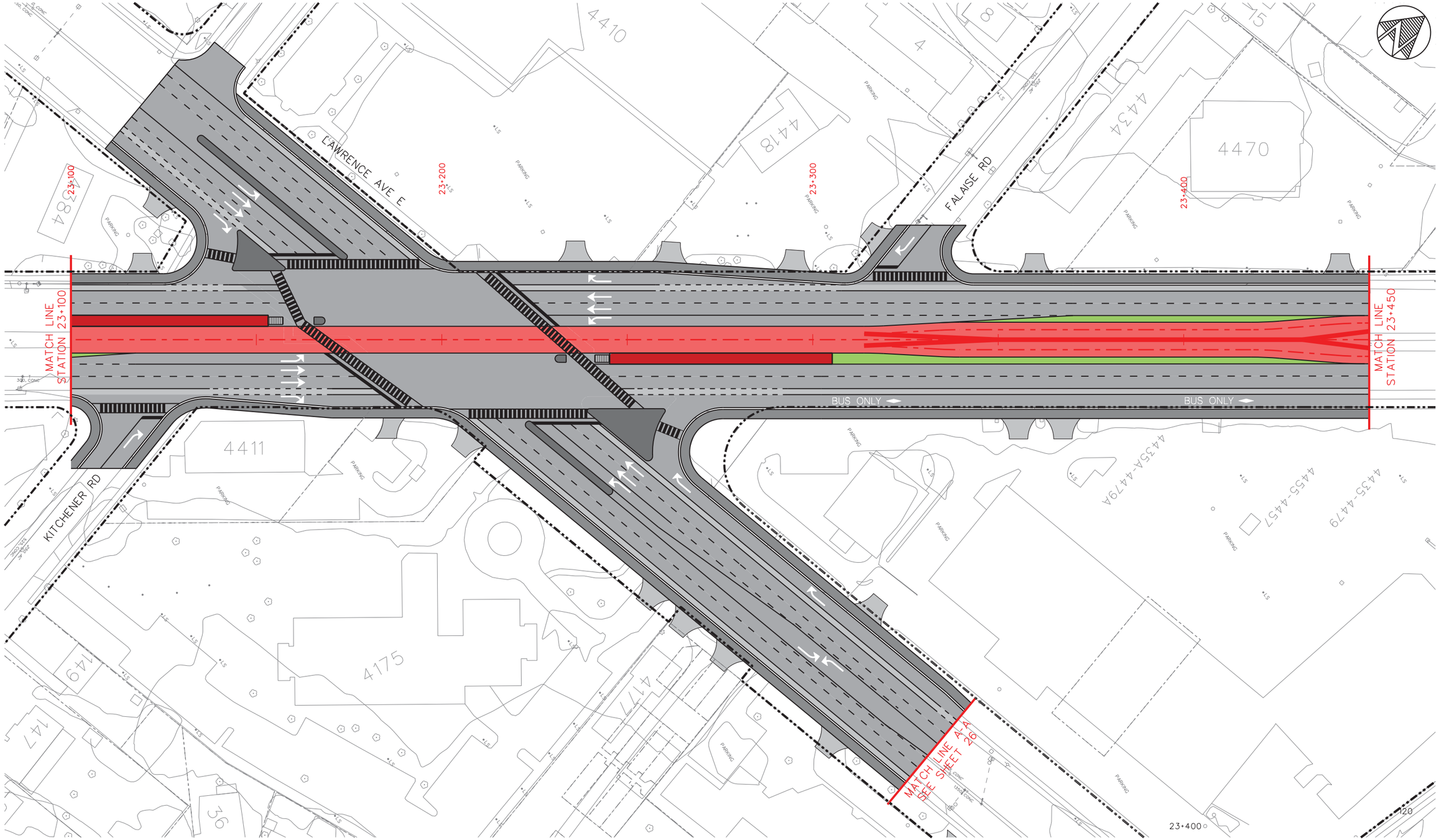

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SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

KINGSTON ROAD – PLAN & PROFILE
STATION 23+100 TO STATION 23+450

IBI GROUP

TORONTO TRANSIT COMMISSION
ENGINEERING DEPARTMENT

Dwg. No.

Sheet No.
24

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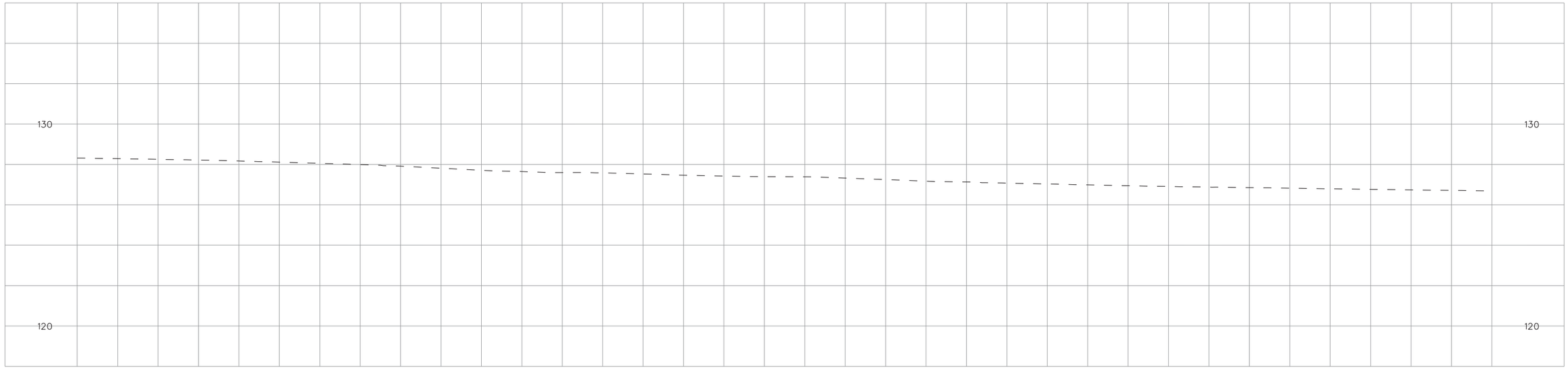

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SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

KINGSTON ROAD – PLAN & PROFILE
STATION 23+100 TO STATION 23+450

IBI GROUP

TORONTO TRANSIT COMMISSION
ENGINEERING DEPARTMENT

Dwg. No.

Sheet No.
25

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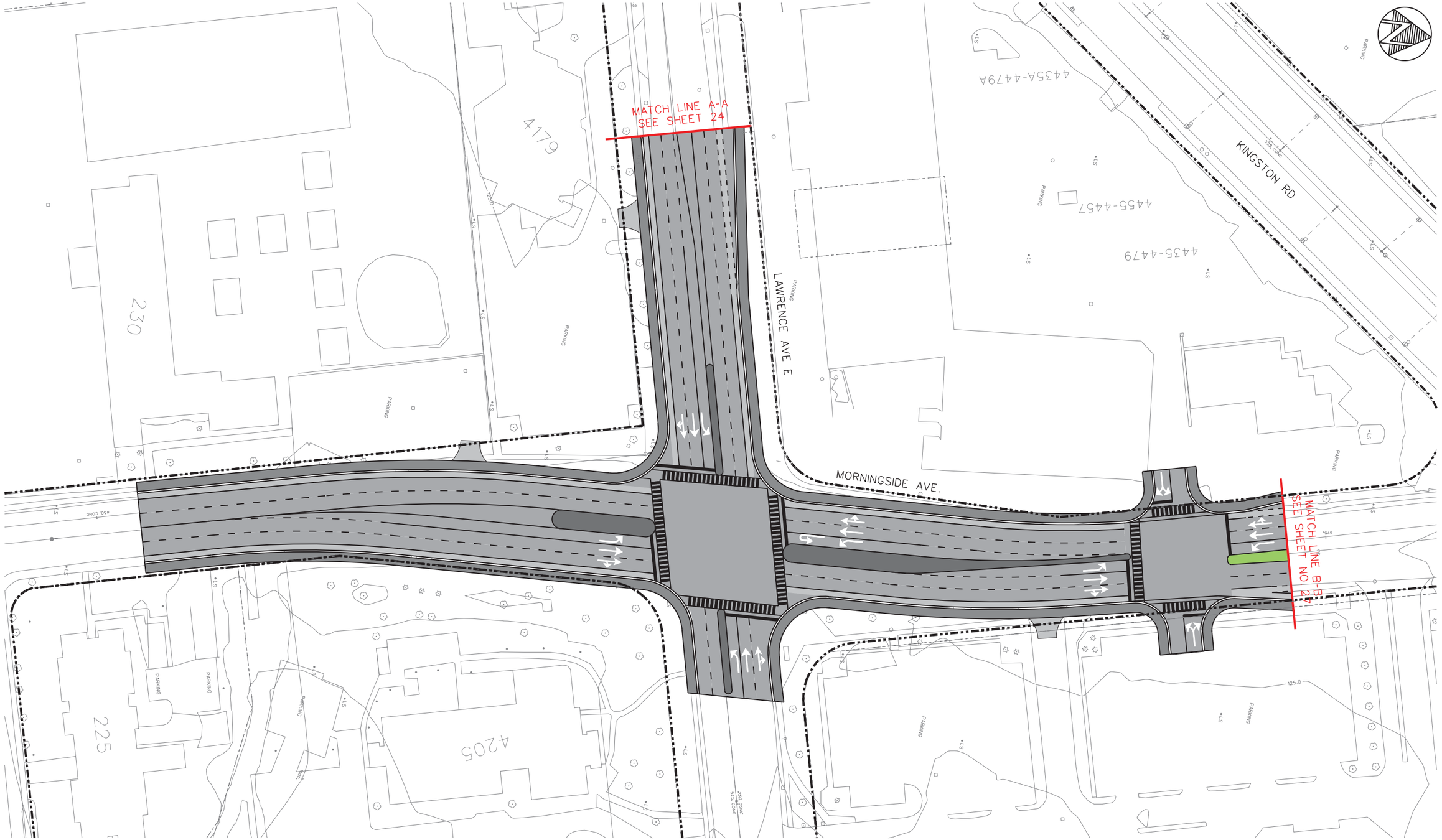

SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

KINGSTON ROAD – PLAN & PROFILE
LAWRENCE AND MORNINGSIDE INTERSECTION

IBI GROUP

TORONTO TRANSIT COMMISSION
ENGINEERING DEPARTMENT

Dwg. No.

Sheet No.
26

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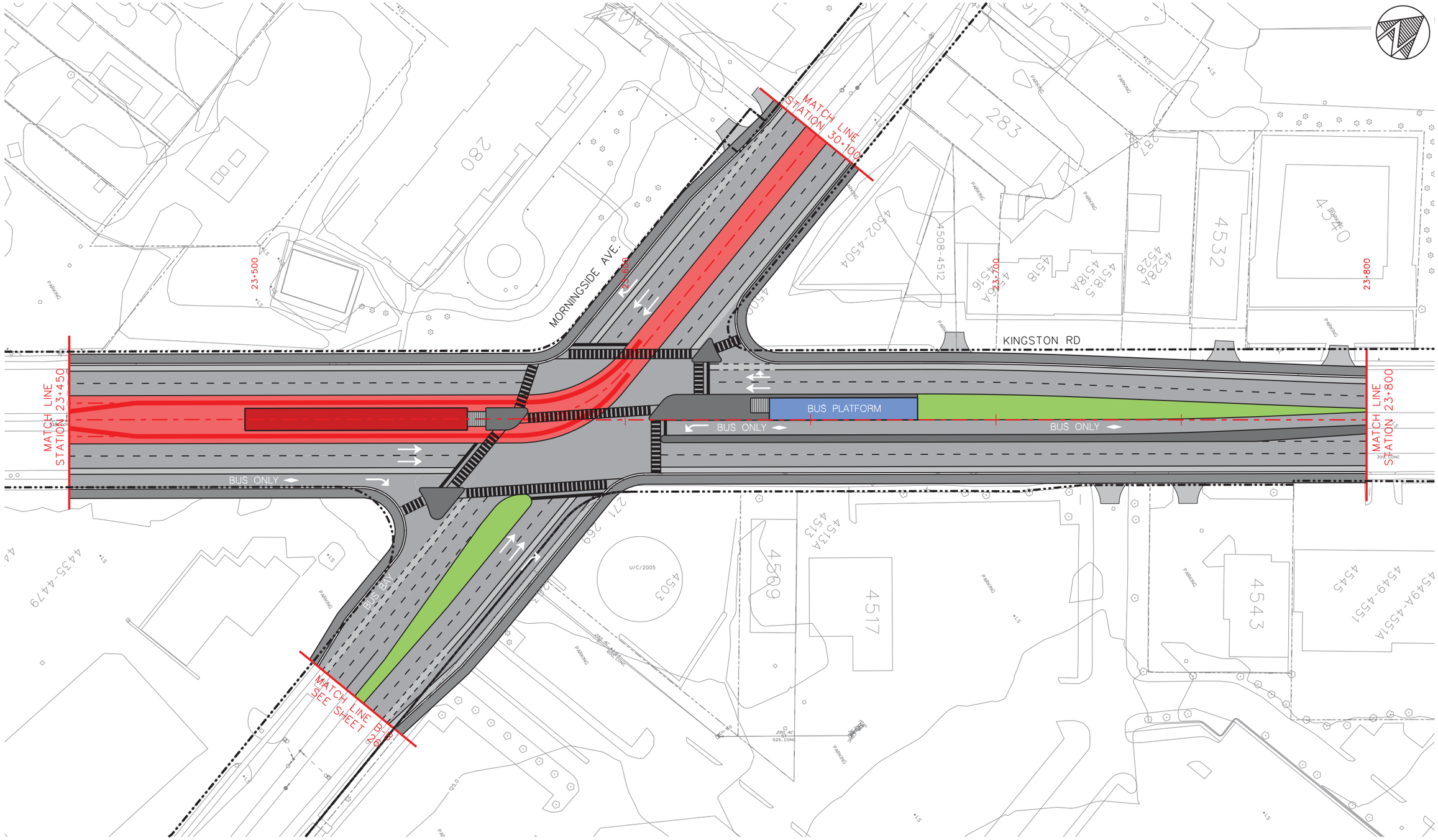

SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

KINGSTON ROAD – PLAN & PROFILE
STATION 23+450 TO STATION 23+800

IBI GROUP

TORONTO TRANSIT COMMISSION
ENGINEERING DEPARTMENT

Dwg. No.

Sheet No. 27

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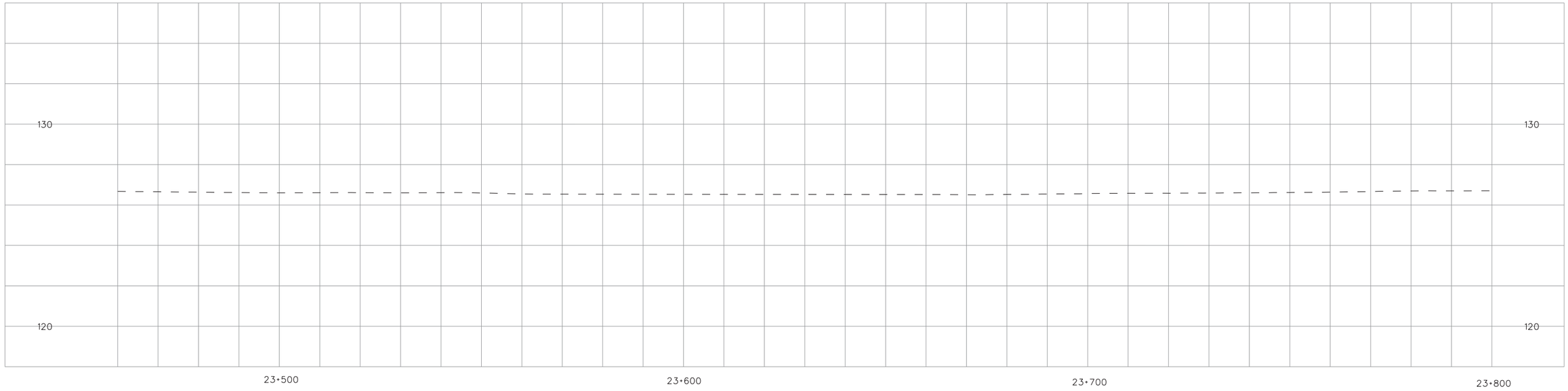

HORIZONTAL 0 5 10 15 20m VERTICAL 0 1 2 3 4m

SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

KINGSTON ROAD – PLAN & PROFILE
STATION 23+450 TO STATION 23+800

IBI GROUP

TORONTO TRANSIT COMMISSION
ENGINEERING DEPARTMENT

Dwg. No.

Sheet No.
28

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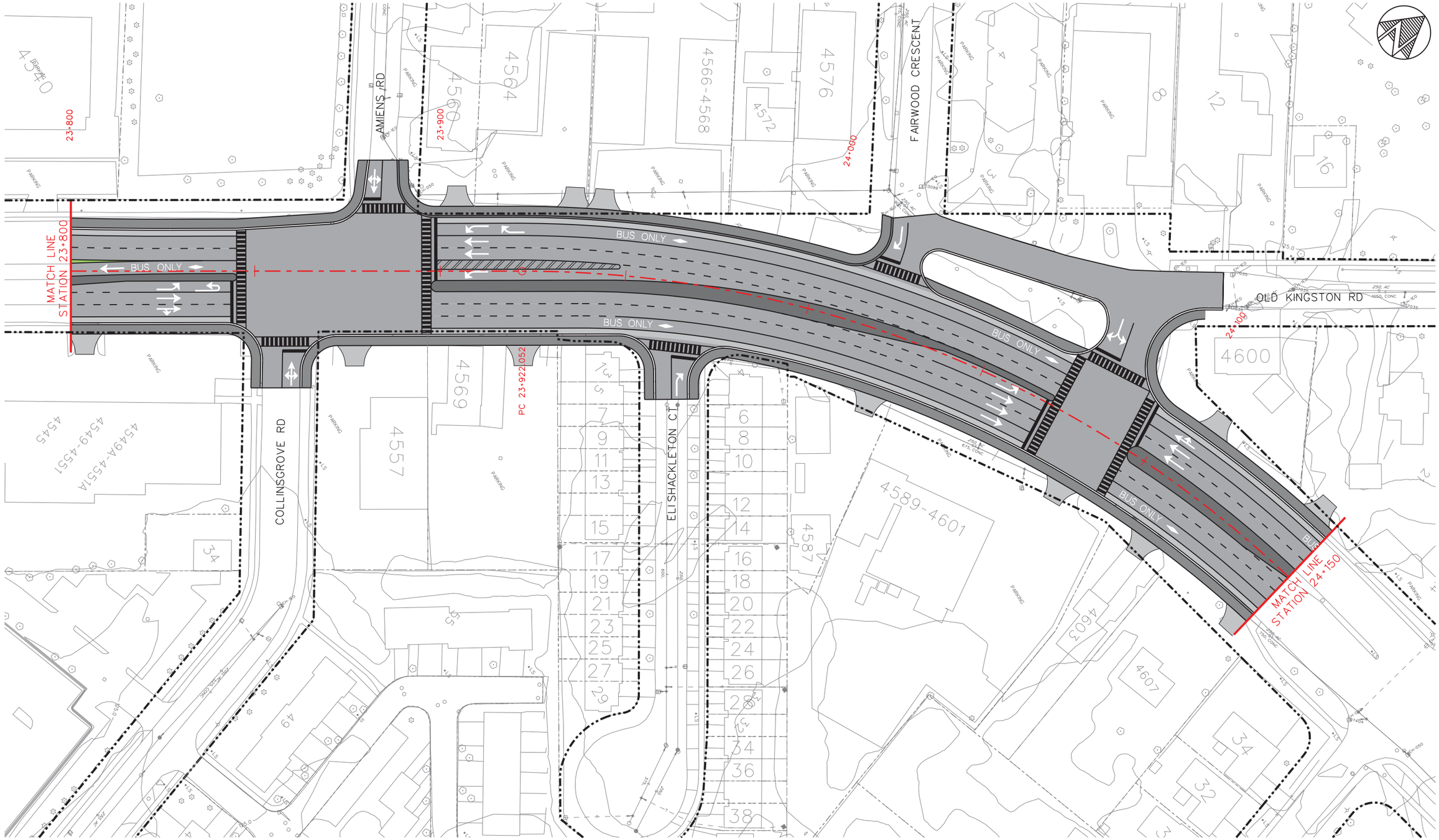

SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

KINGSTON ROAD – PLAN & PROFILE
STATION 23+800 TO STATION 24+150

IBI GROUP

TORONTO TRANSIT COMMISSION
ENGINEERING DEPARTMENT

Dwg. No.

Sheet No.
29

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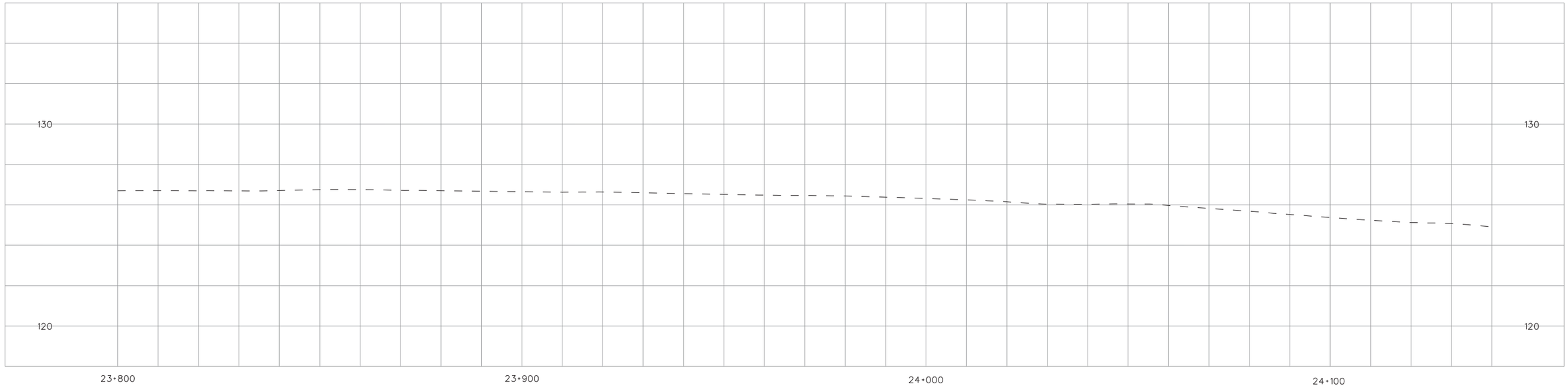

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VERTICAL 0 1 2 3 4m

SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

KINGSTON ROAD – PLAN & PROFILE
STATION 23+800 TO STATION 24+150

IBI GROUP

TORONTO TRANSIT COMMISSION
ENGINEERING DEPARTMENT

Dwg. No.

Sheet No.
30

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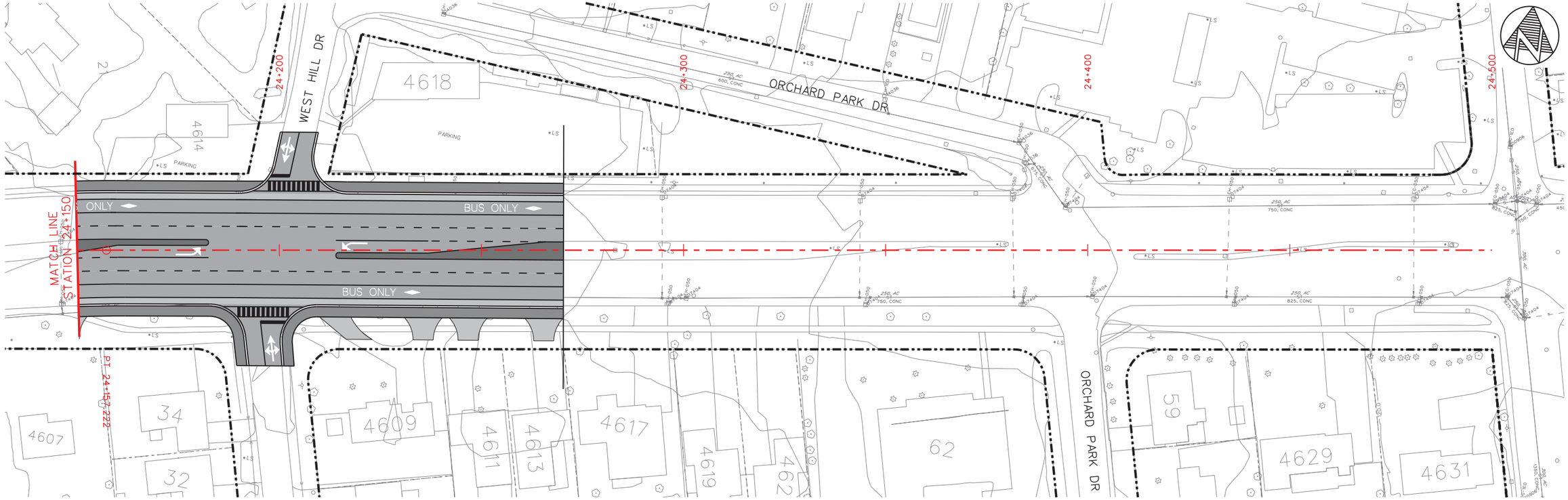
DRAWING No. _____



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DRAWING No.

SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

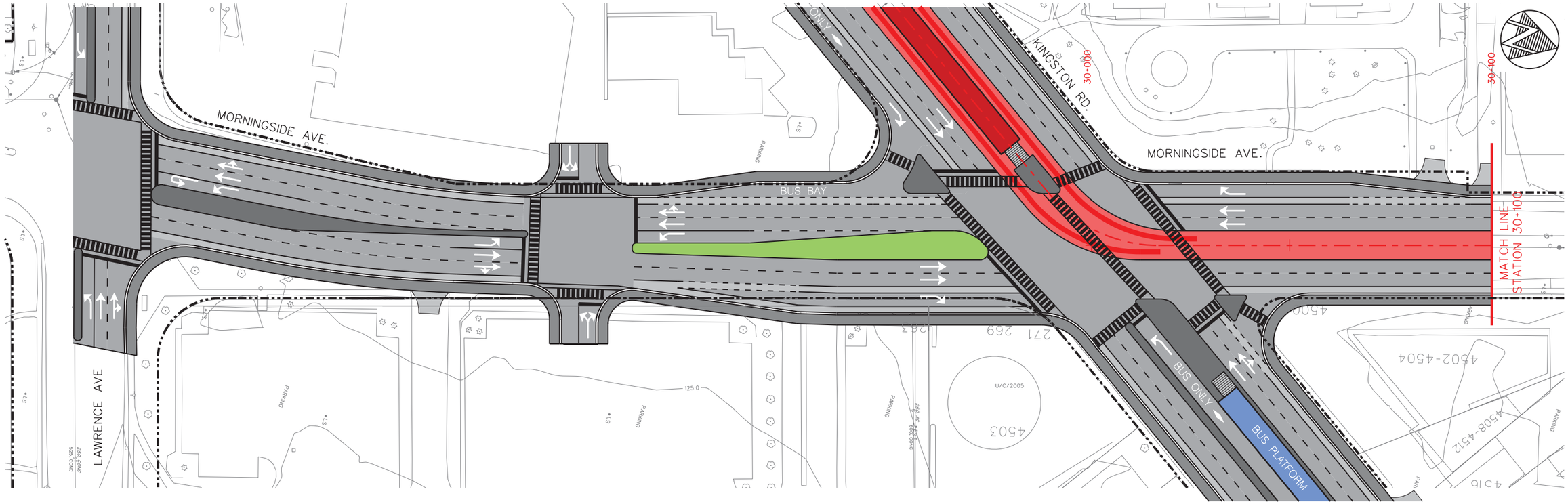
KINGSTON ROAD – PLAN & PROFILE
STATION 23+100 TO STATION 23+450

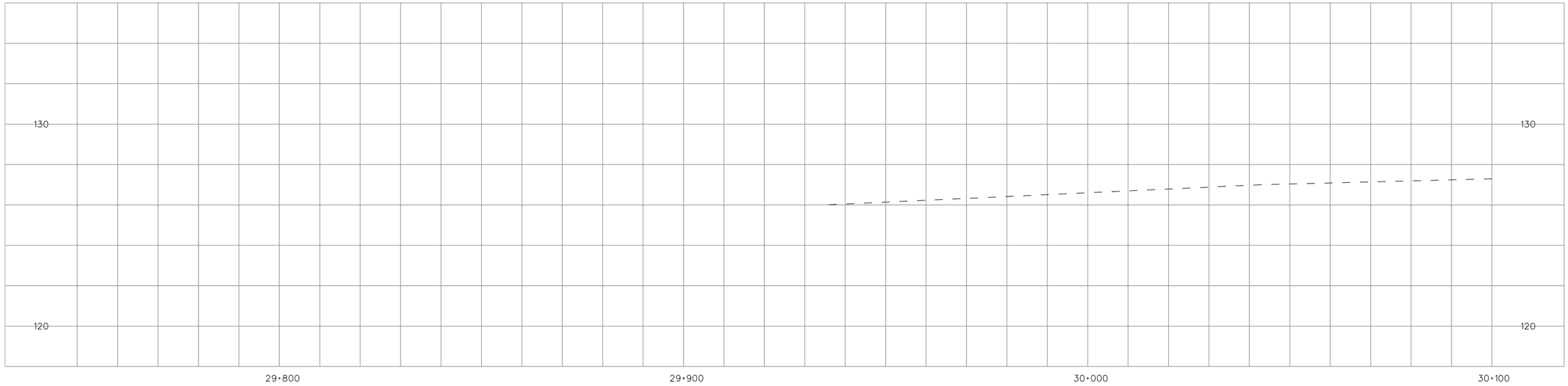
IBI GROUP

TORONTO TRANSIT COMMISSION
ENGINEERING DEPARTMENT

Dwg. No.

Sheet No.
31





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DRAWING No.

SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

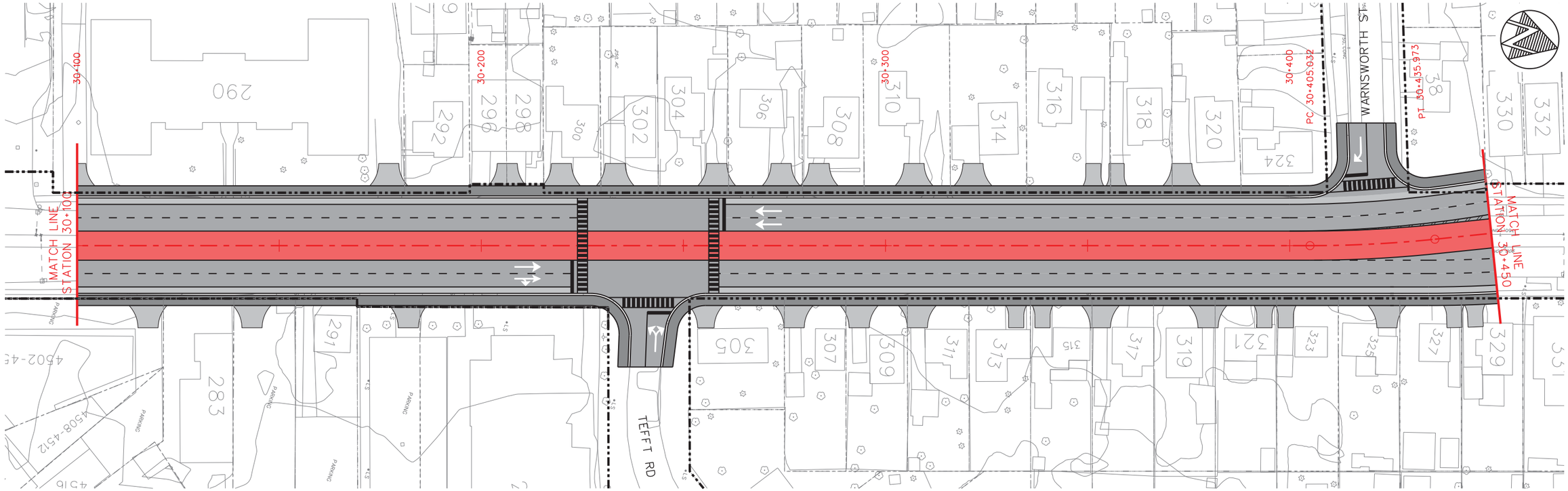
MORNINGSIDE AVENUE – PLAN & PROFILE
STATION 29+750 TO STATION 30+100

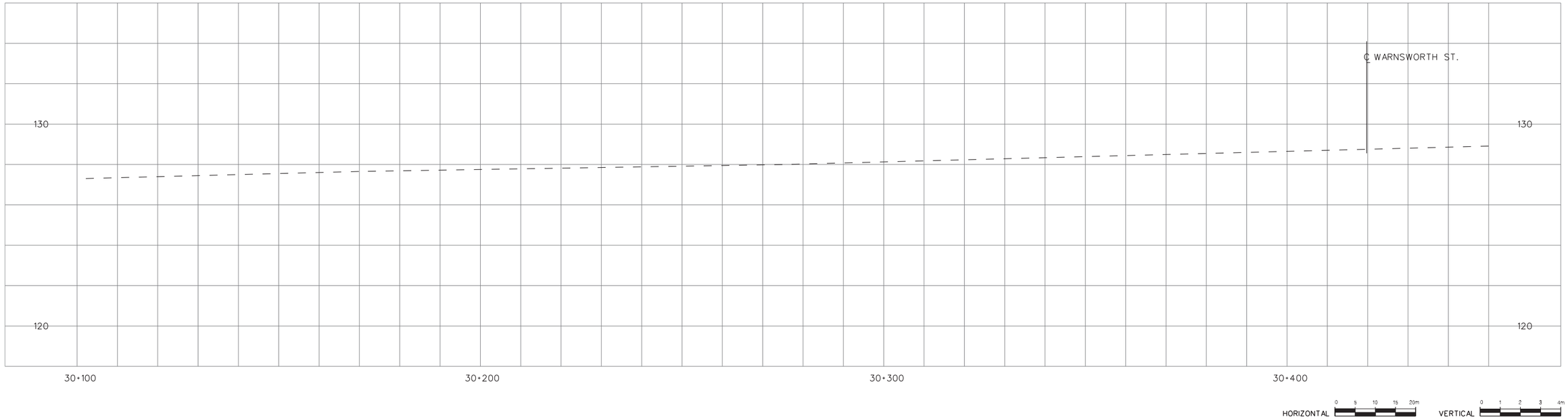
IBI GROUP

TORONTO TRANSIT COMMISSION
ENGINEERING DEPARTMENT

Dwg. No.

Sheet No.
32





SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

MORNINGSIDE AVENUE – PLAN & PROFILE
STATION 30+100 TO STATION 30+450

IBI GROUP

TORONTO TRANSIT COMMISSION
ENGINEERING DEPARTMENT

Dwg. No.

Sheet No. 33

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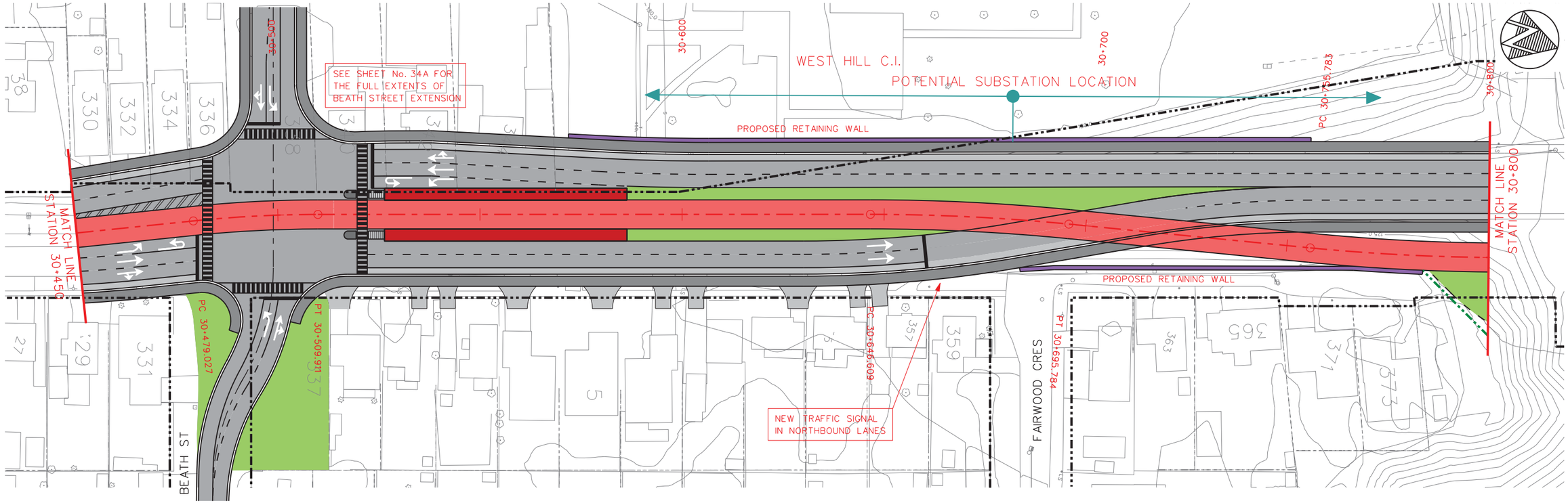

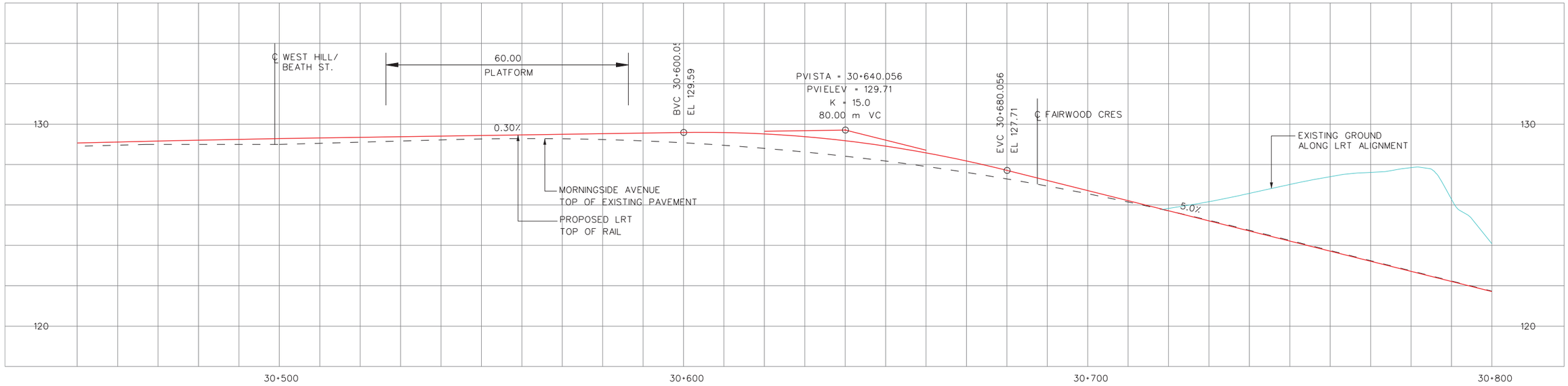

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DRAWING No.

SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

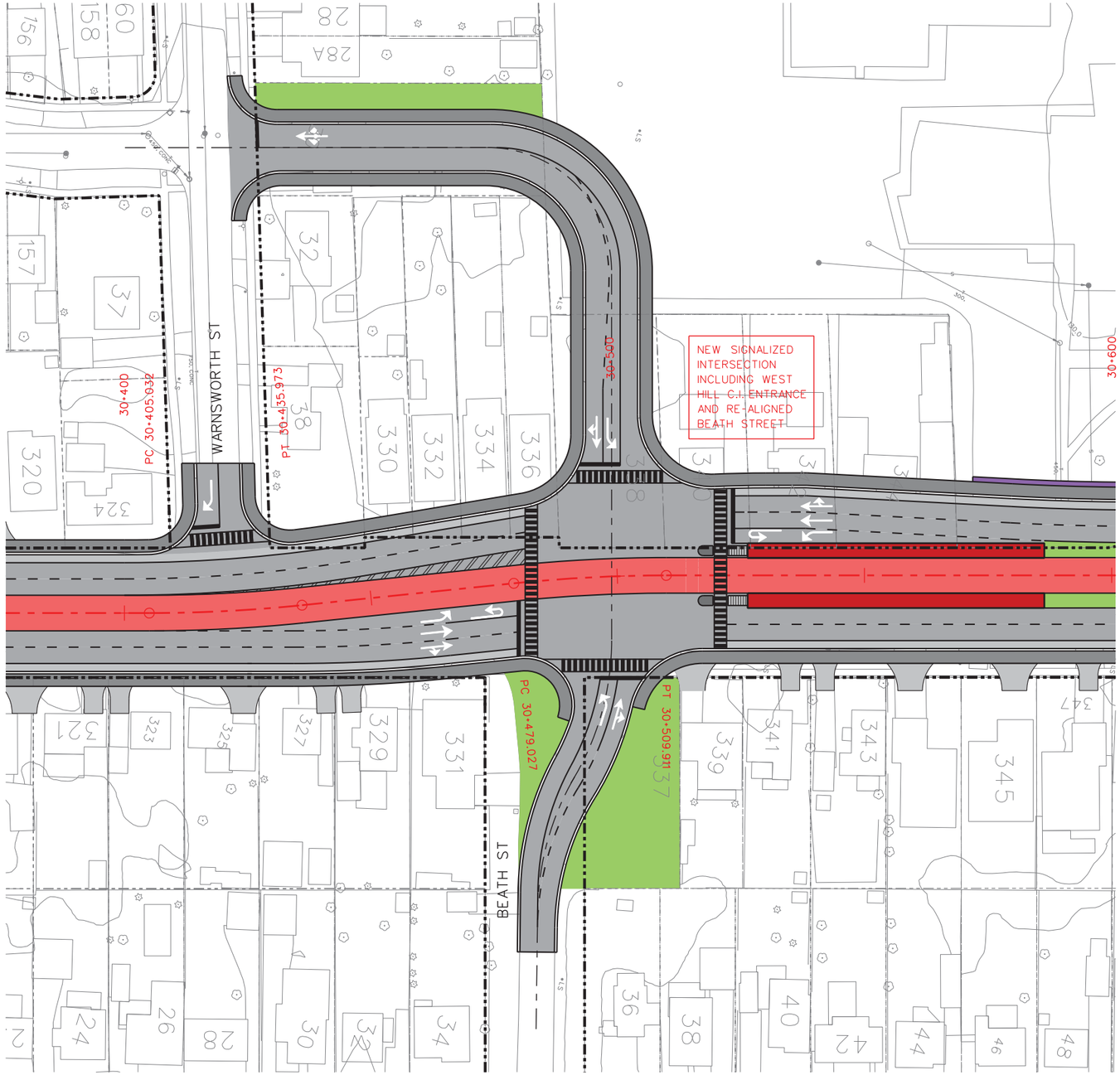
MORNINGSIDE AVENUE – PLAN & PROFILE STATION 30+450 TO STATION 30+800

IBI GROUP

TORONTO TRANSIT COMMISSION
ENGINEERING DEPARTMENT

Dwg. No.

Sheet No.
34



HORIZONTAL 0 5 10 15 20m VERTICAL 0 1 2 3 4m

SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

MORNINGSIDE AVENUE – PLAN & PROFILE
BEATH STREET INTERSECTION

IBI GROUP

TORONTO TRANSIT COMMISSION
ENGINEERING DEPARTMENT

Dwg. No.

Sheet No.
34A

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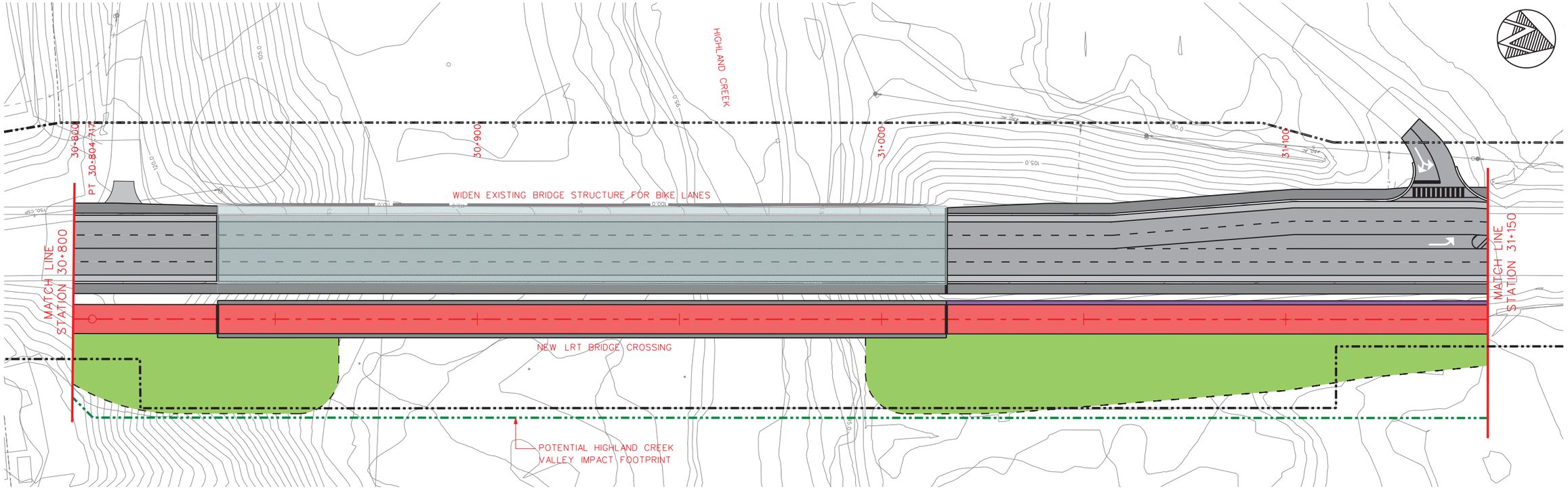

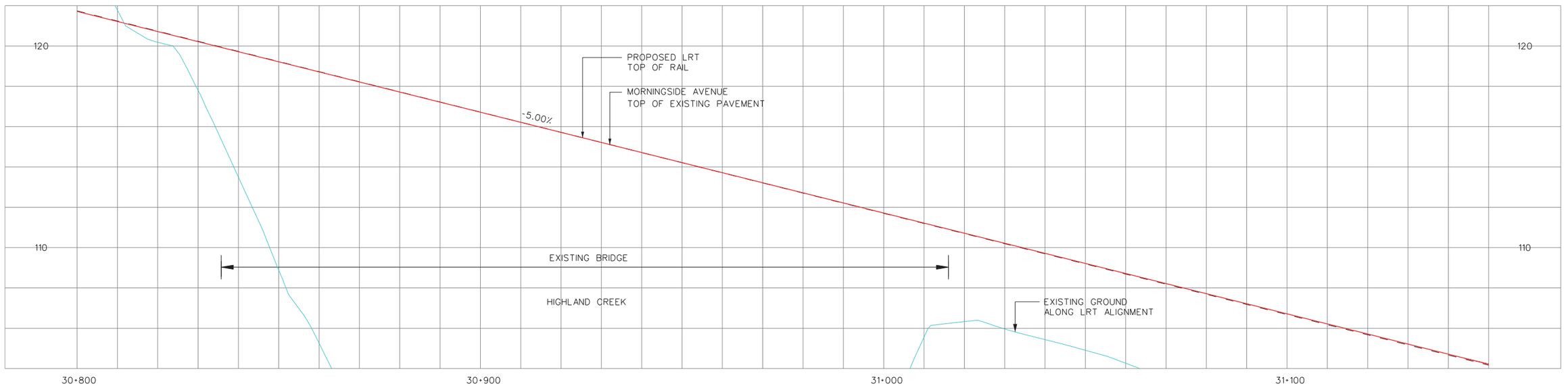

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DRAWING No.

SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

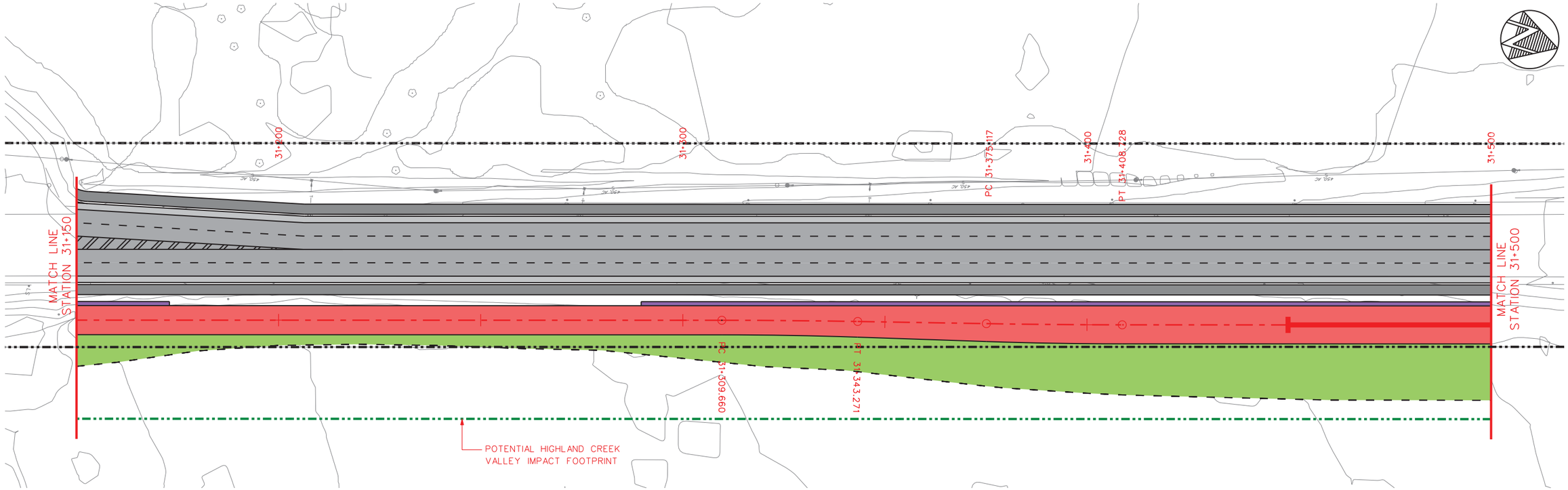
MORNINGSIDE AVENUE – PLAN & PROFILE
STATION 30+800 TO STATION 31+150

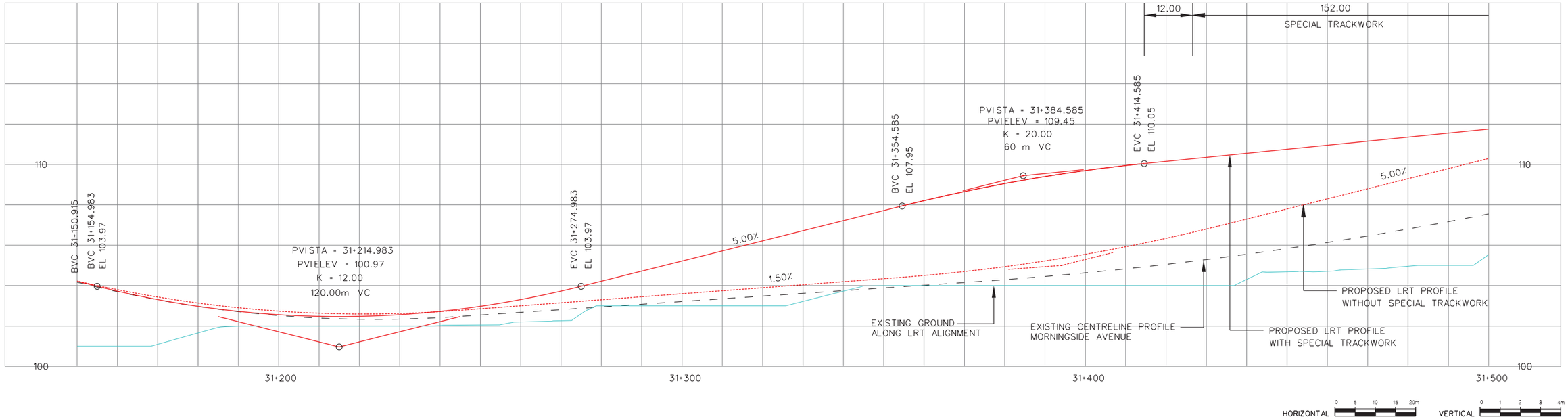
IBI GROUP

TORONTO TRANSIT COMMISSION
ENGINEERING DEPARTMENT

Dwg. No.

Sheet No.
35





SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

MORNINGSIDE AVENUE – PLAN & PROFILE
STATION 31+150 TO STATION 31+500

IBI GROUP

TORONTO TRANSIT COMMISSION
ENGINEERING DEPARTMENT

Dwg. No.

Sheet No. 36

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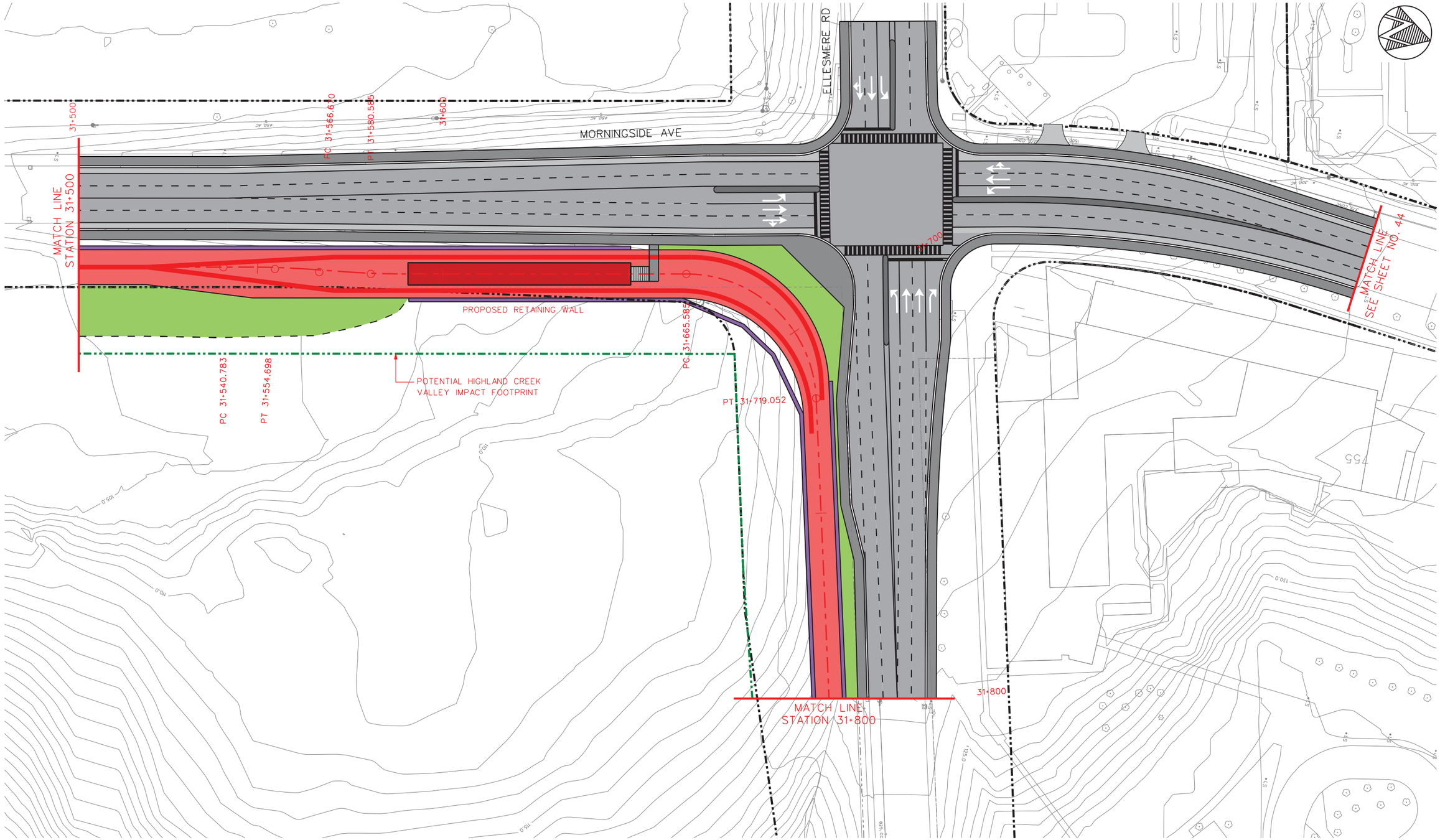

SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

MORNINGSIDE AVENUE – PLAN & PROFILE
STATION 31+500 TO STATION 31+800

IBI GROUP

TORONTO TRANSIT COMMISSION
ENGINEERING DEPARTMENT

Dwg. No.

Sheet No. 37

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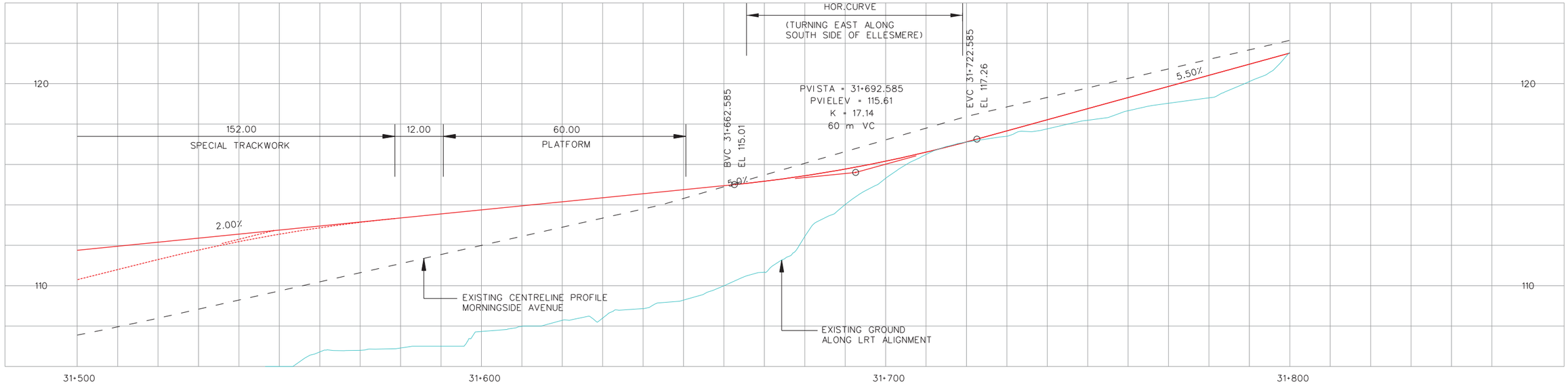


HORIZONTAL 0 5 10 15 20m VERTICAL 0 1 2 3 4m

SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

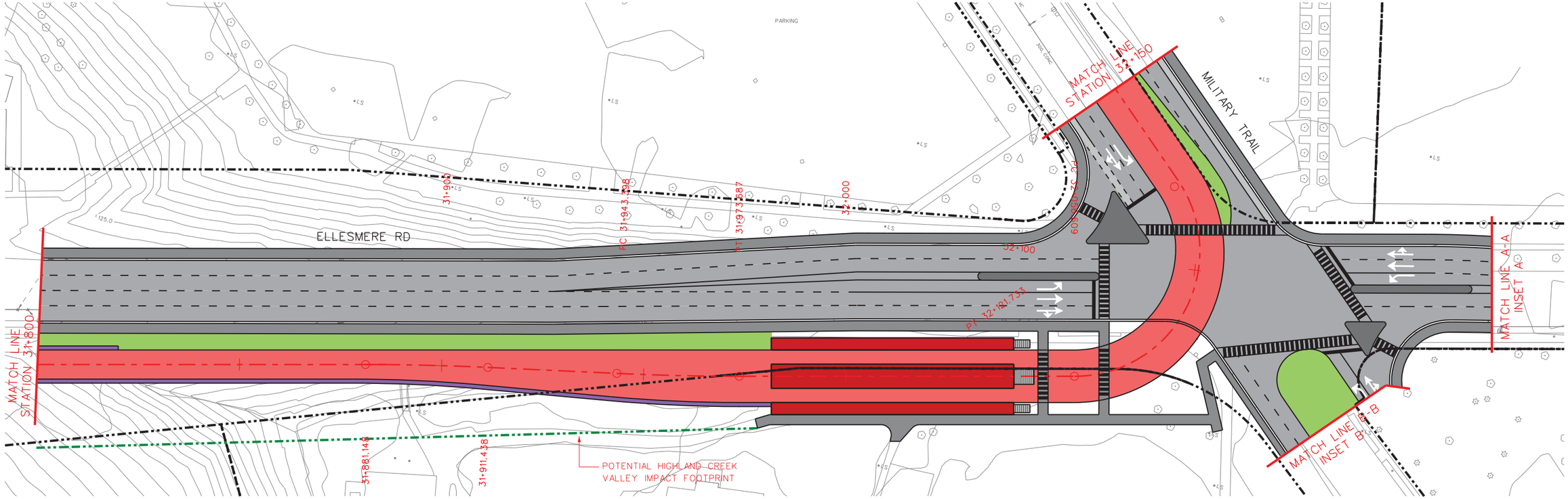
MORNINGSIDE AVENUE – PLAN & PROFILE
STATION 31+500 TO STATION 31+800

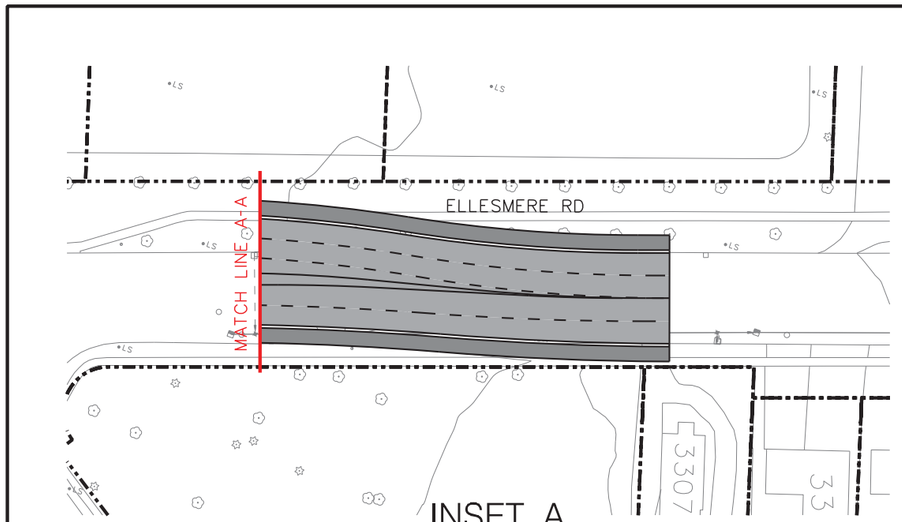
IBI GROUP

TORONTO TRANSIT COMMISSION
ENGINEERING DEPARTMENT

Dwg. No.

Sheet No.
38





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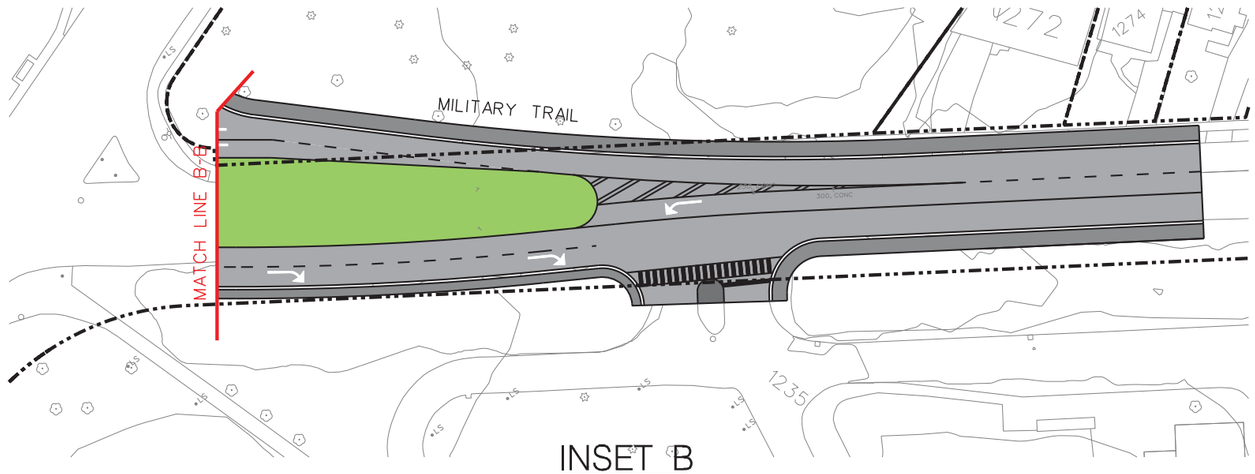

INSET B

SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

MORNINGSIDE AVENUE – PLAN & PROFILE
STATION 31+800 TO STATION 32+150

IBI GROUP

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ENGINEERING DEPARTMENT

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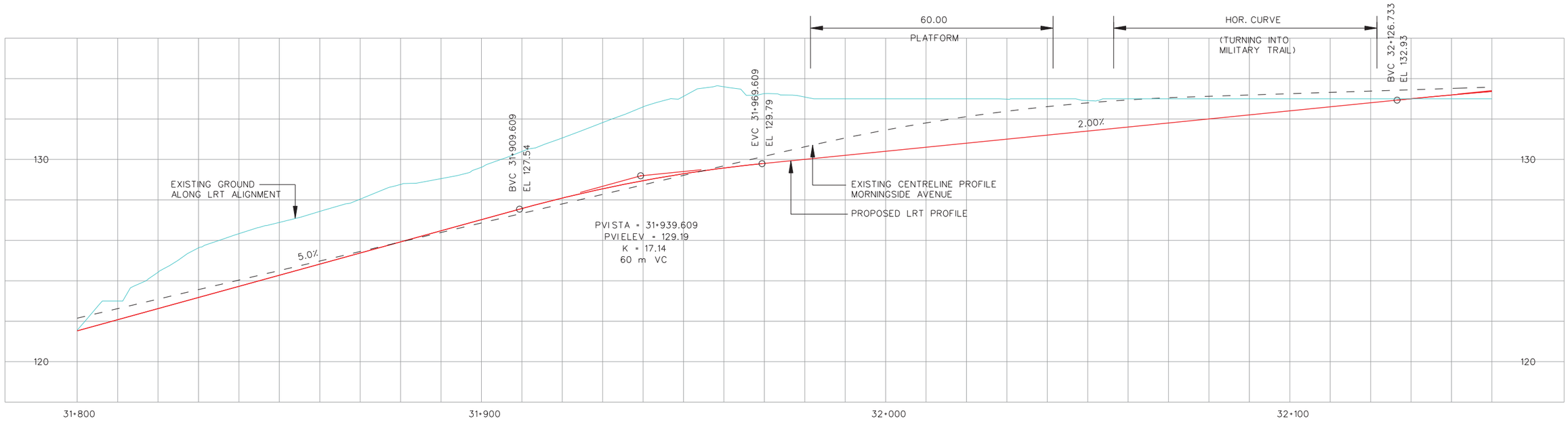

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SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

MORNINGSIDE AVENUE – PLAN & PROFILE
STATION 31+800 TO STATION 32+150

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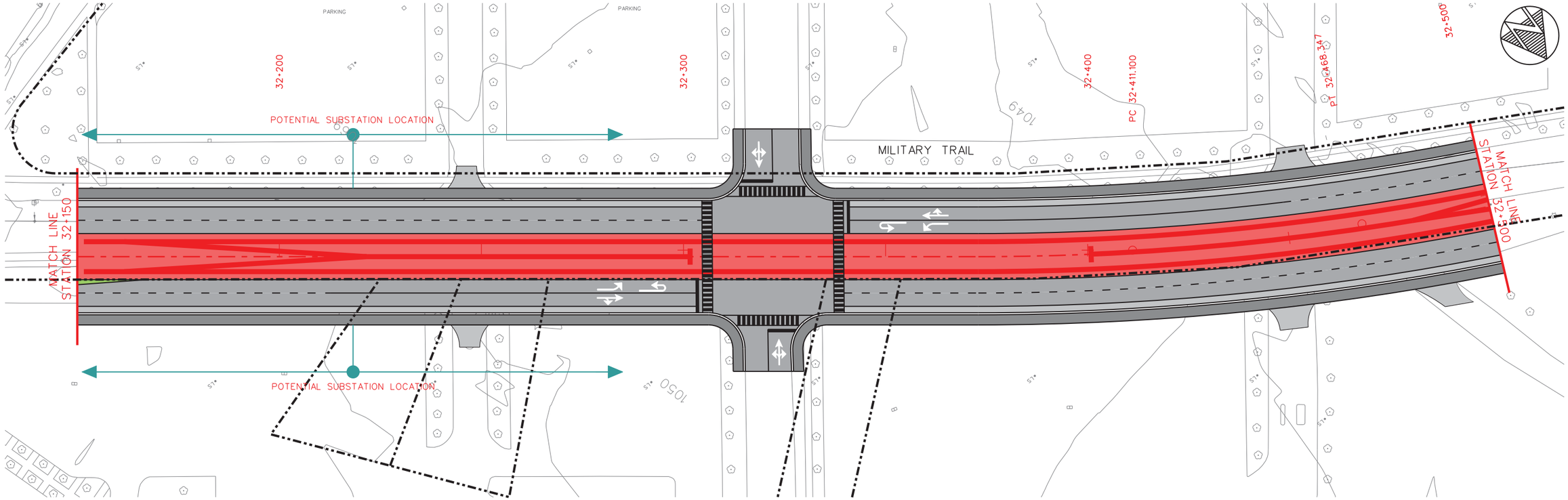

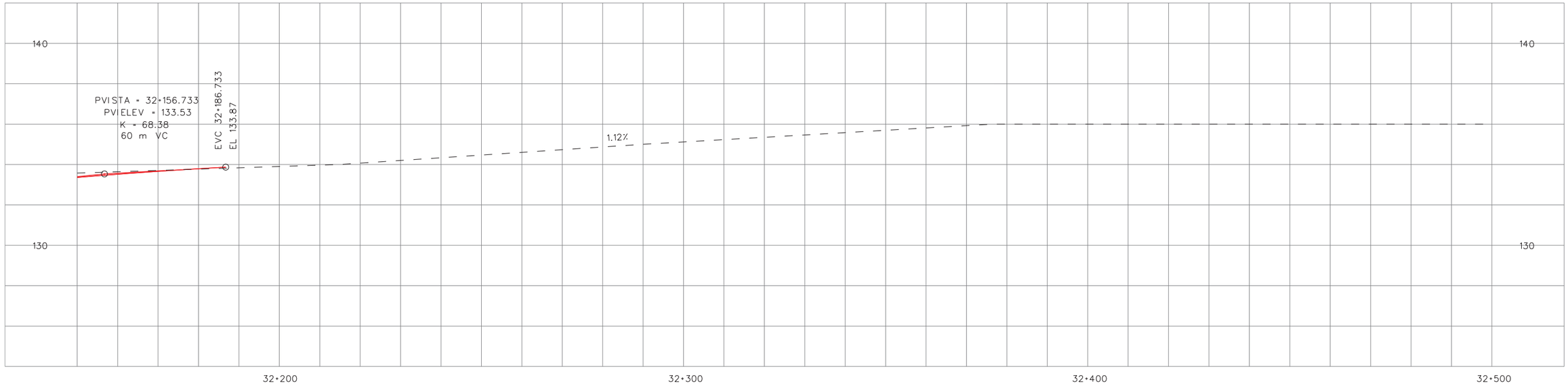

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SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

MORNINGSIDE AVENUE – PLAN & PROFILE
STATION 32+150 TO STATION 32+500

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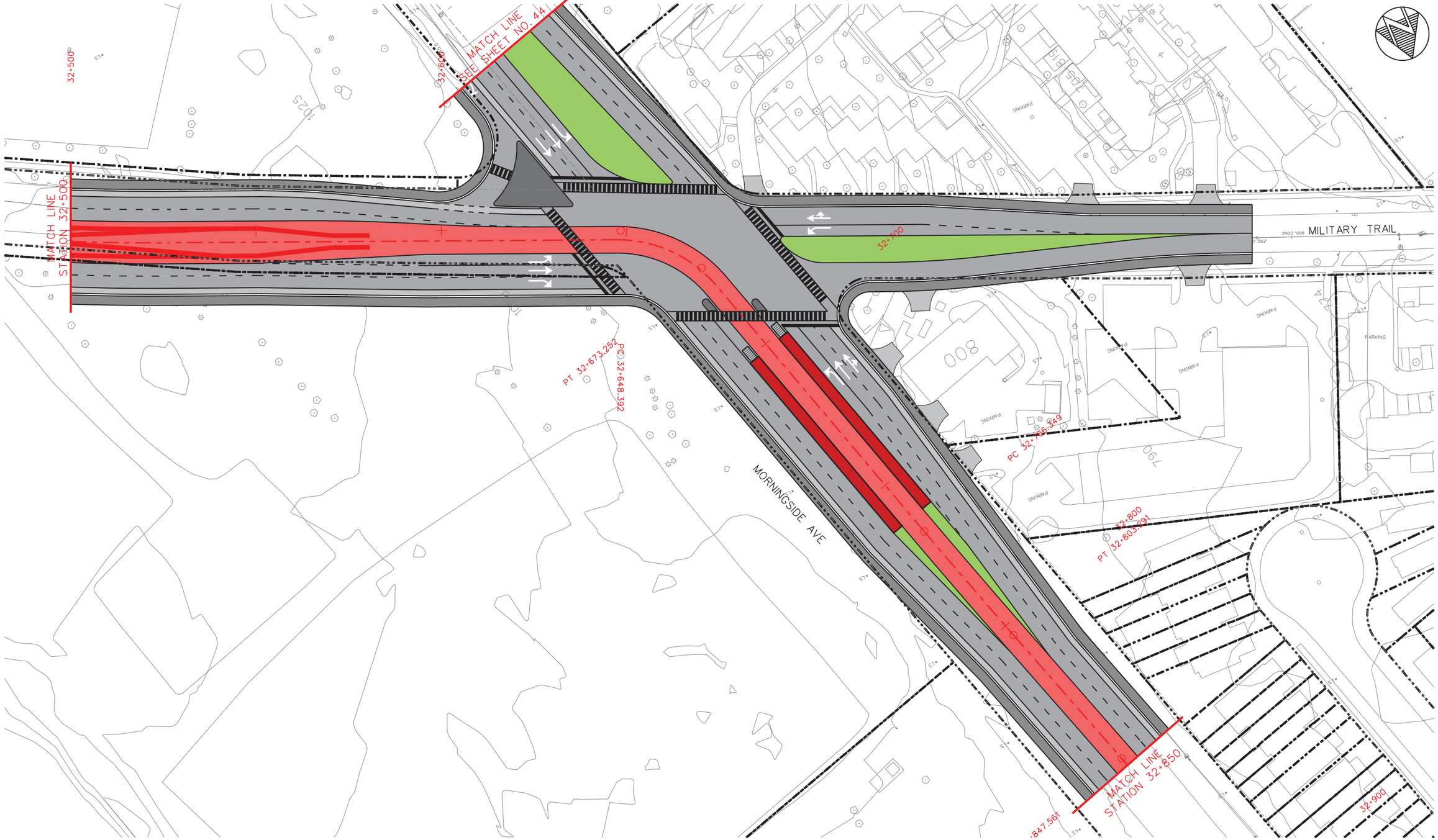

SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

MORNINGSIDE AVENUE – PLAN & PROFILE
STATION 32+500 TO STATION 32+850

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42

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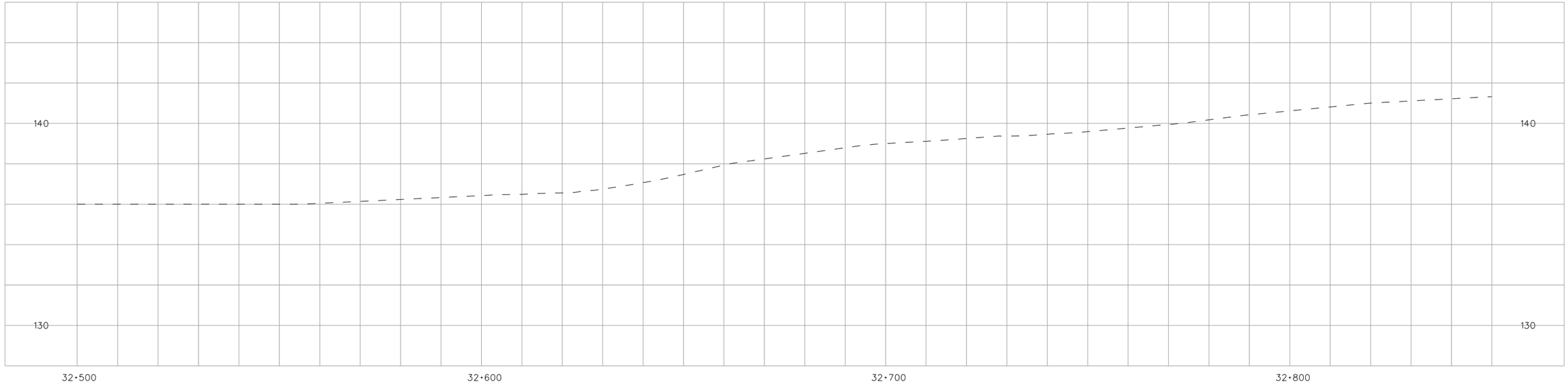

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SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

MORNINGSIDE AVENUE – PLAN & PROFILE
STATION 32+500 TO STATION 32+850

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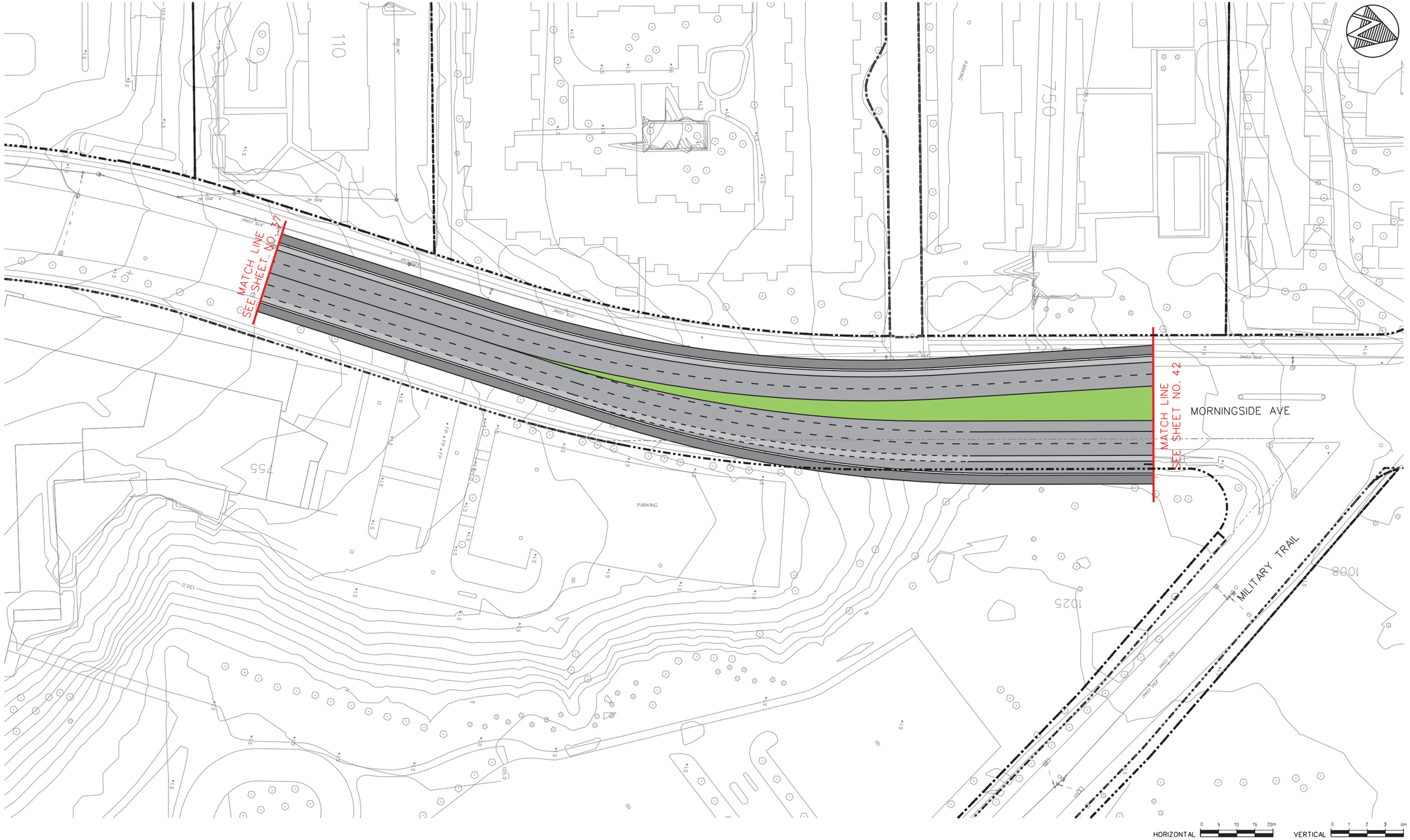

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SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

MORNINGSIDE AVENUE – PLAN & PROFILE
MATCH LINES 37 AND 42

IBI GROUP

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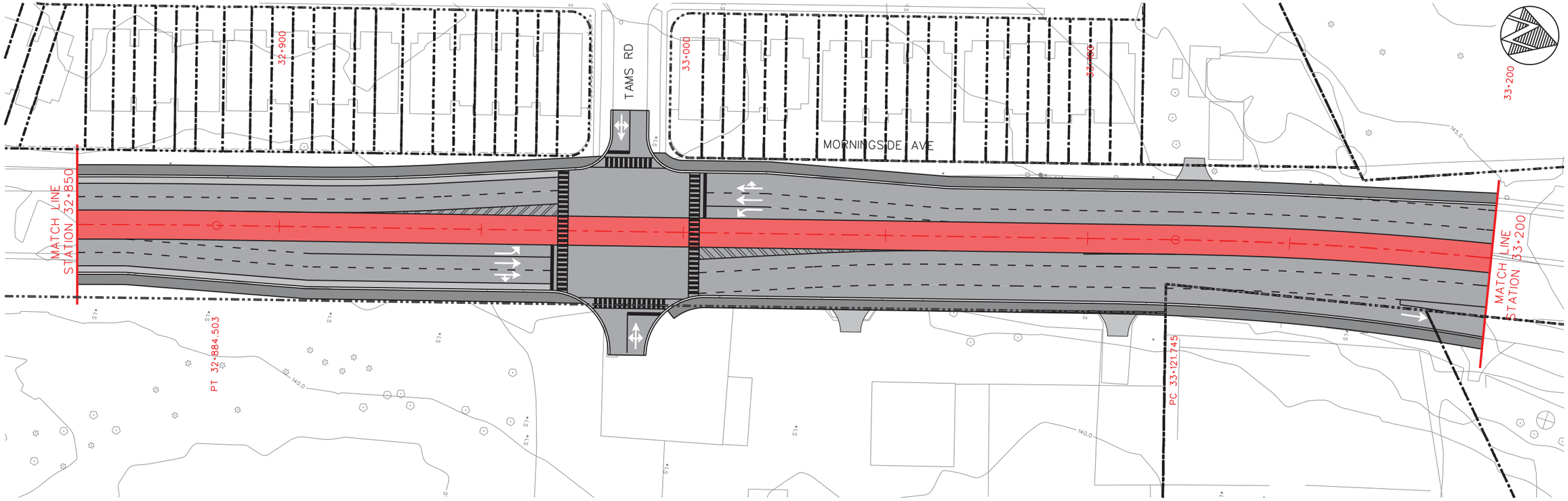

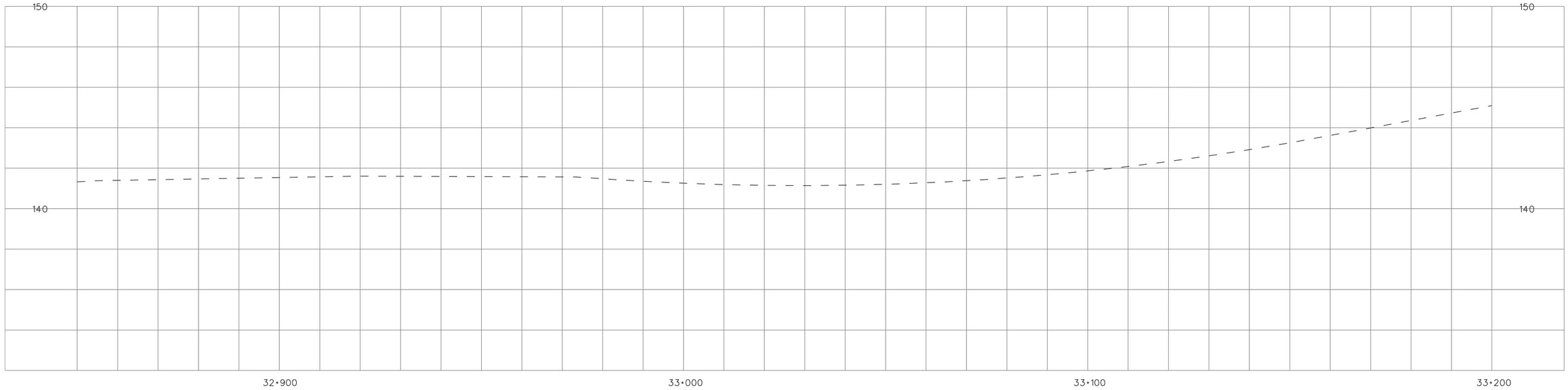

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SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

MORNINGSIDE AVENUE – PLAN & PROFILE
STATION 32+850 TO STATION 33+200

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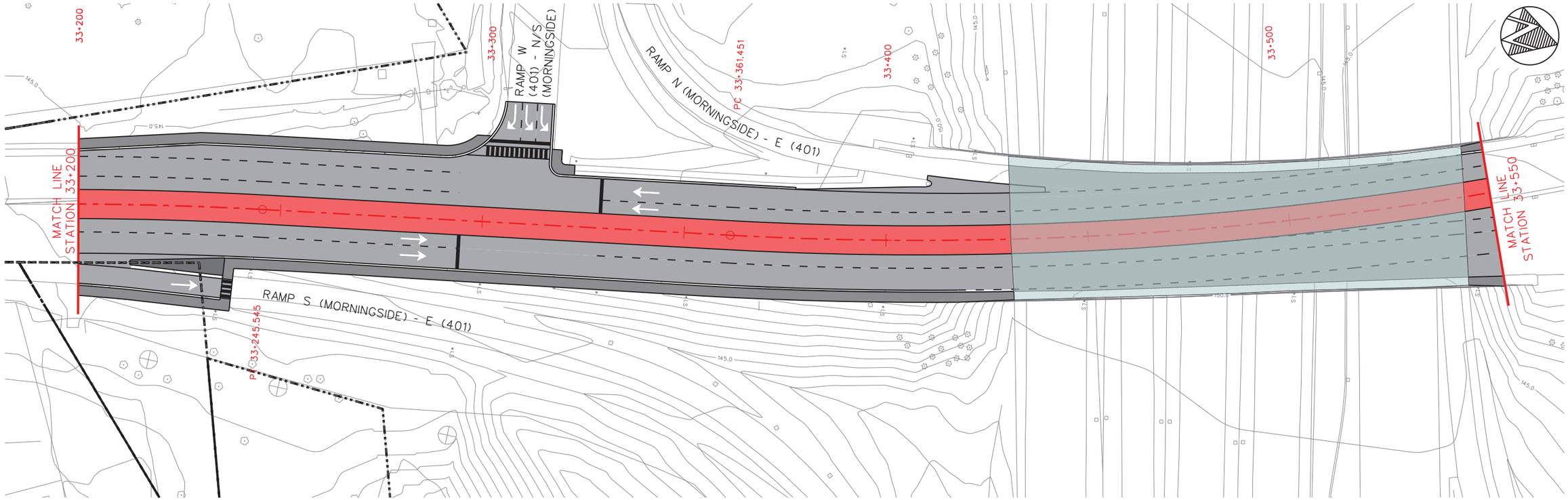

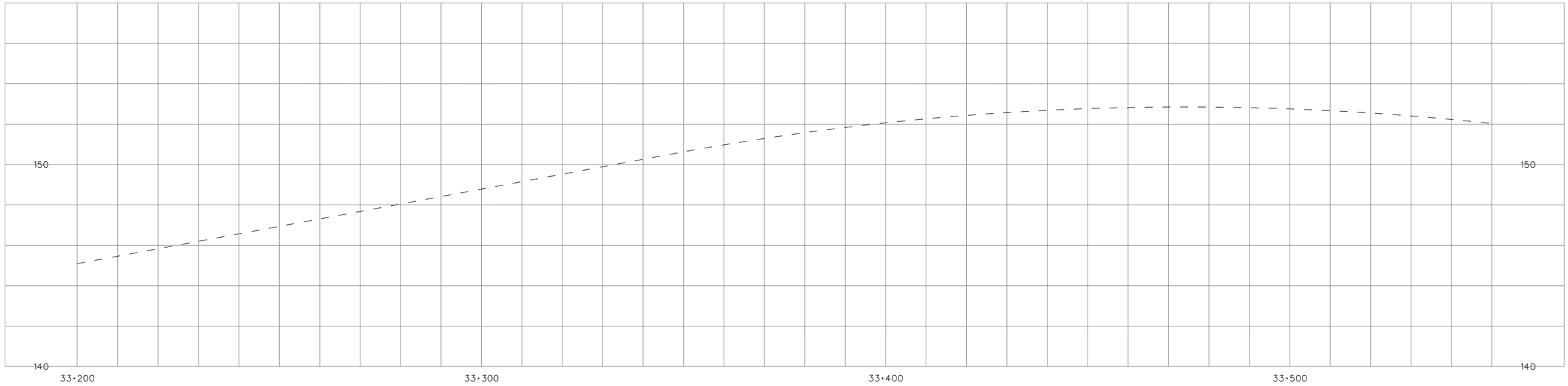

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SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

MORNINGSIDE AVENUE – PLAN & PROFILE
STATION 33+200 TO STATION 33+550

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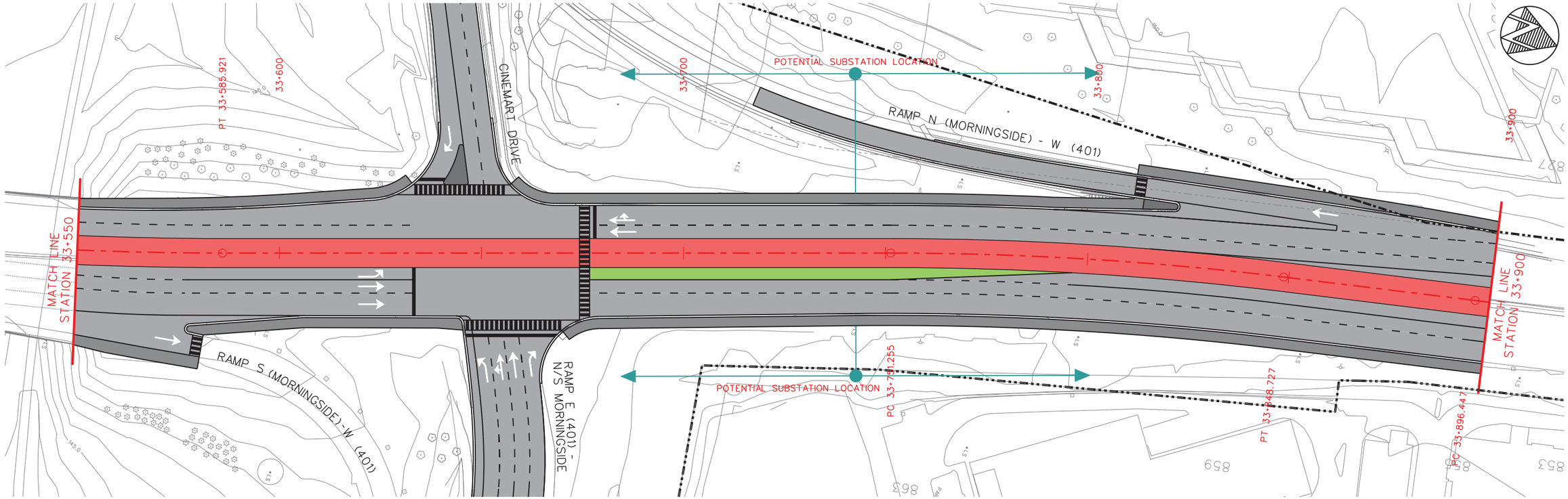
46



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SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

MORNINGSIDE AVENUE – PLAN & PROFILE
STATION 33+550 TO STATION 33+900

IBI GROUP

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ENGINEERING DEPARTMENT

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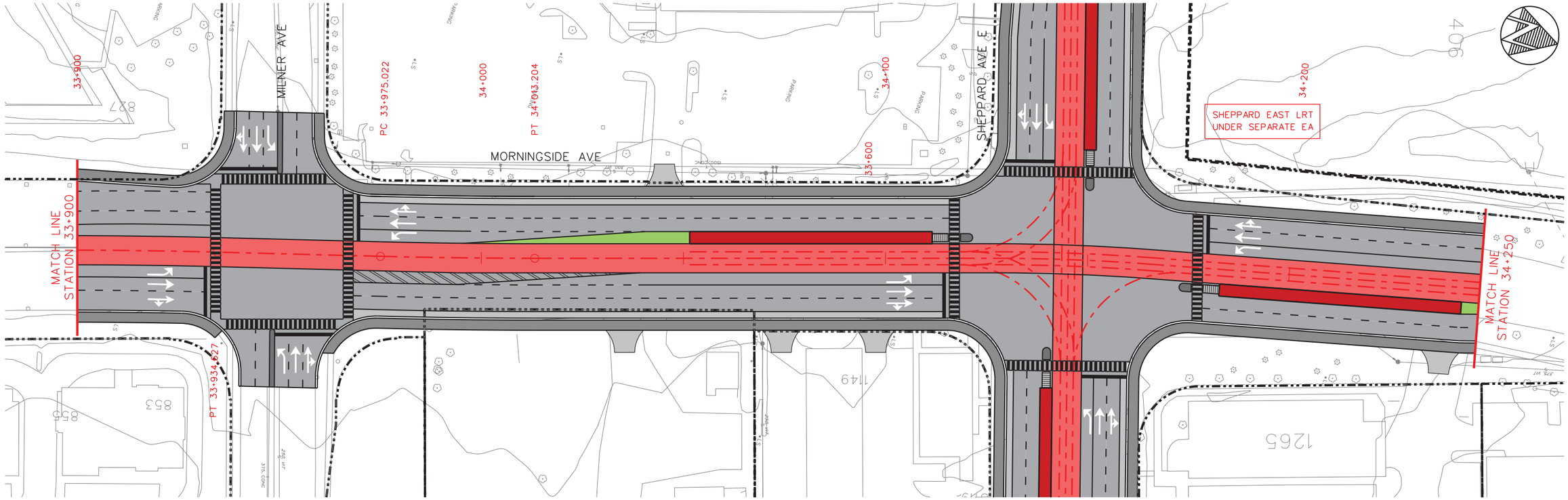
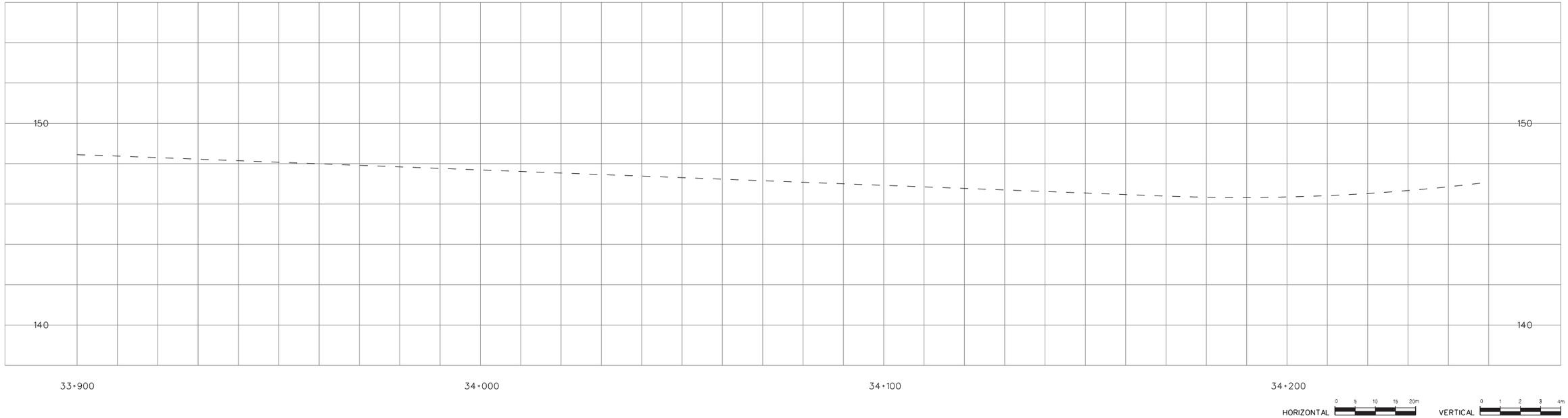
47





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SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

MORNINGSIDE AVENUE – PLAN & PROFILE
STATION 33+900 TO STATION 34+250

IBI GROUP

TORONTO TRANSIT COMMISSION
ENGINEERING DEPARTMENT

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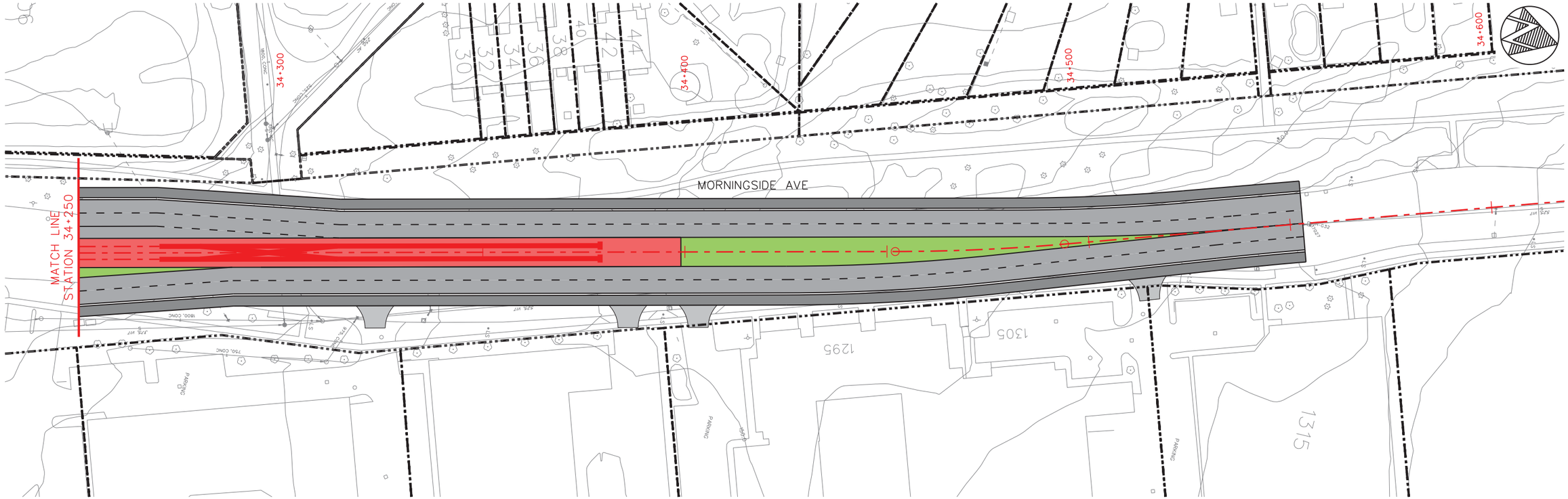
48



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SCARBOROUGH MALVERN LRT – ENVIRONMENTAL PROJECT REPORT

MORNINGSIDE AVENUE – PLAN & PROFILE
STATION 34+250 TO STATION 34+600

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ENGINEERING DEPARTMENT

Dwg. No.

Sheet No.
49

2.2.6 STRUCTURES

The Scarborough-Malvern Corridor includes one subway structure and three overpass structures as listed below:

- Eglinton Avenue East –subway under CNR (Kingston Subdivision, Mile. 323.18)
- Kingston Road –overpass over CNR (Kingston Subdivision, Mile. 321.45)
- Morningside Avenue over Highland Creek
- Morningside Avenue over Highway 401

Preliminary structural assessments, in terms of structural loading and geometric / physical fit, were conducted for each structure along the Scarborough-Malvern corridor.

In general, the weight of the proposed LRT vehicle is slightly less than the standard Canadian Highway Bridge Design Code (CHBDC) vehicle loading, and the existing bridges will have adequate capacity to support the vehicular load due to the LRT vehicle. However, strengthening of the bridges may be required due to additional loads from the trackwork, overhead poles, rail breakage forces and other factors required to accommodate the LRT trackwork. The surcharge due to the concrete infill slab for the LRT track bed also may require strengthening of the existing structures. The increase in moment due to superimposed dead load and live load increases is approximately 35%, and the corresponding increase in shear is approximately 45%. The extent of loading varies for each structure. It may be feasible to use a lightweight polymer infill with a unit weight in the order of 2 to 4 kN/m3, which may reduce or eliminate the need to strengthen the bridges. Another alternative would be to fix the rails directly to the concrete bridge deck.

There are numerous detail design issues to be resolved. From an alignment perspective, the impact of the existing bridge expansion joint detail on the LRT vertical alignment presents an issue. Details to be resolved during detailed design include: confirmation of the LRT load of 618 kN and axle spacing; track infill details including depth, width, and feasibility of using light-weight infill to reduce the weight of the track bed; pole arrangements and pole loads for the overhead wires; and, rail breakage forces, and other forces imposed on the structure to accommodate the LRT.

Rail expansion joints will preferably be located at the two ends of the structure, providing the grade at the joint location is generally flat. The effects of structure movement on the continuous welded rail, and rail breakage effects need to be accounted for during the detailed design process.

The findings of the structure geometric / physical fit are summarized below and preliminary Structural general arrangement drawings are presented in Appendix D:

<u>Eglinton Avenue East at Bellamy Road Subway under CNR Tracks</u>

- The existing bridge is a 2 span twin ballasted deck steel truss underpass structure
- The width of the roadway under the bridge from gutter to gutter is approximately 31.70m, including a 2.44m median and a 1.52m wide pier column located within the median.
- The existing vertical clearance between the top of the pavement and the bottom of the structure is 4.65m, which is less than the preferred vertical clearance of 4.7m. However, the clearance can be increased by reducing the pavement depth at that specific location.
- The maximum longitudinal slope of Eglinton Avenue below the bridge structure is 5%, which satisfies the maximum slope of 5% for the new LRT vehicle. The existing bridge can accommodate the required horizontal clearance for the 2 lanes of traffic and bicycle lane each way and the new LRT designated right-of-way configuration.
- The final design / construction of LRT will require CNR review and approval during the design phase.

<u>Kingston Road Overpass at CNR</u>

- The Existing bridge is a 5 span precast pre-stressed concrete girder with capping beam overpass structure.
- Width of the bridge deck from gutter to gutter is 24.690 m including a 1.530 m median within which the horizontal clearances are sufficient to accommodate through traffic lanes, LRT and bicycle lanes
- The maximum longitudinal slope of the approach to the bridge is 4.9%, which satisfies the assumed maximum slope of 5% for the new LRT Vehicle.
- The final design / construction of LRT will require CNR review and approval during the design phase.

<u>Morningside Avenue Bridge over Highland Creek</u>

- The existing bridge is a 6 span overpass structure with precast pre-stressed concrete girder.
- The existing Highland Creek structure width of the deck is 15.240m from gutter to gutter The superstructure consists of 19.51 m wide cast-in-place (CIP) reinforced concrete composite deck with 9 precast pre-stressed concrete girder (CPCI type IV). The superstructure is supported on conventional CIP reinforced concrete piers and abutments.
- The bridge does not have sufficient deck width to accommodate 2 lanes of traffic each way and the new LRT designated right-of-way configuration. A new structure is proposed adjacent to the existing bridge to accommodate the proposed LRT tracks as noted in Section 5.3.1.

Given a new structure is required and the existing structure is proposed to be widened, a meander belt width assessment was undertaken by Parrish Geomorphic at Highland Creek under the existing Morningside Avenue. Based on the geomorphic analyses, a number of points can be made which form the basis of the ultimate recommendation. From a geomorphic perspective, the optimum location for a road crossing should have the following factors:

1. At a straight, stable section of the watercourse (i.e. at riffle area with minimal lateral mitigation)

2. At the narrowest point of a valley

3. In an area that has been previously disturbed or already has an existing crossing

The existing Morningside Avenue crossing satisfies the above noted factors. However, the recent peak flow events (August 2005) have initiated major platform adjustments within the system which indicate that Highland Creek has yet to adjust to its urbanized flow regime and could be expected to migrate or widen in the future in order to achieve a new state of dynamic equilibrium.

Given the above, the geomorphic analysis recommended that that the existing crossing location and span could be maintained, however the distance between the piers should be increased to allow for some natural adjustment of the channel while minimizing the risk to infrastructure. Currently the bridge piers are 30.48 m apart; however a span of approximately 40-45 m would allow the piers to span the high water level and most active section of channel within the valley floor.

For the new crossing, the 120 m span would likely be sufficient, but should be centered on the channel with pier spans of 40-45m.

Morningside Avenue Bridge over Highway 401

- The existing structure is a 3 span 133 m (approximately) long structure steel trapezoidal box girder bridge with a 225 mm thick cast-in-place concrete deck and 90mm thick waterproofing and asphalt wearing surface constructed in 1988.
- The bridge superstructure is supported on cast-in-place reinforced concrete abutments and piers founded on footings and constructed at normal to the road alignment.
- The width of the roadway at the bridge from gutter to gutter is approximately 31.0 m. The bridge can accommodate the required horizontal clearance for two lanes of traffic in each direction and the new LRT designated right-of-way.
- The maximum longitudinal slope of the bridge structure is 3.5%, which satisfies the assumed maximum slope of 5% for the new LRT vehicle. The girders could be strengthened to accommodate the additional load from a conventional concrete bed, or alternatively a light weight material track bed could be considered.
- Additional detailed assessments and cost-sharing issues will be required to be resolved, and are committed to undertaking this work during the preliminary engineering phase of the project.
- The construction of LRT will require MTO's review and approval during the design phase.

2.2.7 CONSTRUCTION STAGING

Assuming that the Scarborough-Malvern corridor will be constructed in a single contract, subject to the availability of funding, construction staging will likely proceed as follows:

- Relocate the underground utility plant to the outside of the LRT right-of-way throughout the study corridor. This will include relocation of illumination poles and above ground utility poles, removal of the concrete median and construction of temporary pavement along Kingston Road and relocation of traffic signals and provision of temporary traffic signals where required.
- Reconstruct the curb line on one side of the roadway and provide continuous traffic lanes on the other side of the roadway. The reconstruction will include rebuilding the curb lines, gutters, catch basins etc. It should be noted that the reconstruction of the curb line may potentially occur simultaneously during the utility relocation.
- Reconstruct the other side of the roadway when the first side is completed. Two traffic lanes in each direction on Eglinton Avenue and Kingston Road will be maintained during the roadway reconstruction. Resurface the roadway after the roadway reconstruction.
- Construct the new westbound lanes on Eglinton Avenue at the Kingston Road intersection, the new LRT bridge structure across Highland Creek and the LRT facility along Ellesmere Road.
- Construct new LRT facilities within the LRT right-of-way, including the track bed, track slab, tracks, LRT curbs, poles, platforms, etc along Eglinton Avenue, Kingston Road, Morningside Avenue and Military Trail.
- Construct track connector at the Sheppard Avenue / Morningside Avenue intersection.
- Construct streetscaping and urban design elements and provide bicycle lanes on both sides of the roadway as included in the plan.

2.2.8 UTILITIES

Existing utilities located within the Scarborough-Malvern corridor (including Bell, Rogers Cable, Enbridge Gas, Telus, Allstream and Cogeco Data service) have been identified. The utility impacts noted in this study are determined from the mark-up drawings provided by utility companies. The location of all plant, potential conflicts and the relocation strategy will be confirmed during the detailed design stage. It is anticipated that the utilities within the LRT right-of-way will require relocation to the outside edge of the right-of-way due to future LRT operation and maintenance issues. It is not desirable to have to disrupt LRT operations to maintain utilities. The utilities that may be affected by the LRT and the approximate impact length are listed below. The details of the potential utility impacts are provided in Appendix J.

- All Stream – 0.3 km
- Bell (Buried Cable and Conduit) - 8.6 km
- Cogeco Data – 3.0 km
- Enbridge Gas – 4.6 km
- Telus – 0.05 km
- Storm Sewer – 5.9 km
- Sanitary Sewer – 3.0 km

2.2.9 ELECTRICAL SUBSTATIONS

Electrical substations are required to supply electricity to the LRT system, including LRT vehicles, lights, safety system and fare collection system. The traction power network, including transformer, switches and circuit will supply adequate power at an acceptable voltage to the transit vehicles and will be designed to minimize stray current activities and step and touch voltage hazards.

A draft traction power plan titled "Transit City Traction Power Overview" was prepared by the TTC in March 2009 to outline the traction power substation requirements and the electrical demands for the Transit City program. The plan proposes nine (9) power substations along the Scarborough-Malvern LRT between Kennedy Road and Sheppard Avenue with an average spacing of 1.5 km. The substations reduce the voltage from the Toronto Hydro power supply to the 750 volts required to run the LRT and help maintain consistent power along the LRT line. Considerations for contingency conditions, for example power failure of one of the substations, and future power demand, have been accommodated in the proposed traction power design. This report is included as Appendix G.

The typical substation structures are proposed to be 11 m by 4.6 m and 4 m high. Additional length and width may be required for providing access and an attractive façade. These structures will be carefully sited so that they are not located on residential property and do not obstruct existing and future developments along the LRT corridor. The final locations of the electrical substations will be further investigated in the detailed design stage. The general locations of the substations are as follows:

1. SM1/EC19 - Kennedy Road and Eglinton Avenue Intersection;
2. SM2 – Brimley Road and Eglinton Avenue Intersection;
3. SM3 – Bellamy Road and Eglinton Avenue intersection;

4. SM4 – Kingston Road and Eglinton Avenue intersection;
5. SM5 – Kingston Road at the Guildwood GO Station ;
6. SM6 – Lawrence Avenue and Kingston Road intersection;
7. SM7 – South of Highland Creek on Morningside Avenue;
8. SM8 – Military Trail and Ellesmere Road intersection; and
9. SM9 – Milner Avenue and Morningside Avenue intersection.

2.2.10 PROPERTY REQUIREMENTS

For the most part, the LRT facilities can be constructed within the available 36 m right-of-way at the midblock section of Eglinton Avenue and Kingston Road. Property frontages may be affected by the LRT due to the provision of left turn lanes, centre platform and/or sight-distance triangle requirements at the intersection areas.

On Morningside Avenue between Kingston Road and Highland Creek, the average right-of-way is approximately 26 m, whereas the City of Toronto Official Plan identifies the right-of-way as 30 m. Therefore, a part of the frontages along Morningside Avenue between Kingston Road and north of Warnsworth Street will be required. Similarly with the existing narrow right-of-ways, property frontages will be required on Ellesmere Road and Military Trail to accommodate the proposed design.

In order to accommodate the proposed LRT facilities, including both LRT tracks and platforms, and to provide transit service and community continuity in the West Hill area, 10 properties located on the west side of Morningside Avenue between Warnsworth Street and the Highland Creek structure may be required.

The preliminary property requirements for each parcel along the Scarborough-Malvern LRT corridor are provided in Appendix H. The areas of property requirements for each corridor are shown in Exhibit 2-29. These property requirements include open space, institutions, parkland and residential and commercial areas. The proposed property requirements identified are preliminary only and will be reviewed and confirmed during the preliminary and detailed design stage.

Exhibit 2-29: Overall Property Requirements

Location	Property Required (ha)
Eglinton Avenue	0.3
Kingston Road	0.3
Morningside Avenue (Partial property takes)	61.1
Morningside Avenue (Full property takes)	0.8
Warnsworth Avenue (Full property takes)	0.1
Ellesmere Road	12.7
Military Trail	25.2

2.2.11 COST ESTIMATES

The capital costs of constructing the Scarborough-Malvern LRT line, between Kennedy Station and Sheppard Avenue East, including vehicles, apportioned maintenance and storage facilities and apportioned Kennedy Station Improvements is estimated to be $1,078 million. These figures are expressed in 2009 dollars and do not carry any escalation allowance for work undertaken in future fiscal periods.

The Scarborough-Malvern LRT is not included in the TTC Transit City Priority Projects and has not received Provincial or Federal funding. The EA approval will ready this project for implementation and provide for corridor protection.

Metrolinx's Regional Transportation Plan schedules the Scarborough-Malvern LRT in the 15-25 year timeframe.